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ABSTRACT

Interactions between the government and Oregon State University were assessed with attention to the following areas: employment and personnel administration (regulations regarding equal opportunity, affirmative action, and nondiscrimination); students and student life (regulations regarding admissions, financial aid, records management, special student programs, and instructional activities); sponsored research (regulations regarding grant and contract research, the Agricultural Experiment Station, the Cooperative Extension Service, and the Sea-Grant Program); and facilities and physical plant (regulations regarding the health and safety of university students and staff, and access for the handicapped). Some specific topics of analysis are as follows: the state merit system, interpretations of the Federal Unemployment Tax Act and related legislation, students' rights, the Buckley Amendment (privacy of student academic records); types of student financial assistance programs, research accountability, Extension Service programs, use of human subjects for research, and the University's Radiation Center and occupational safety. It is concluded that a moral dilemma arises when simultaneous pursuit of the many societal goals and mandates requires the application of resources beyond the institution's ability to provide them. (SW)

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OREGON STATE UNIVERSITY

GOVERNMENTAL IMPACT STUDY

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Office of Planning and
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October 1977

INTRODUCTION

Oregon State University, located in the city of Corvallis, is the Land-Grant and Sea-Grant University of the State of Oregon. These official designations indicate the close working relationship with governmental agencies that has characterized the history of this institution. OSU originated as a private sectarian academy, incorporated as Corvallis College in 1858. The State of Oregon began its assistance to higher education in 1868 when it designated Corvallis College "the agricultural college of the State of Oregon." In taking this action, the Legislative Assembly accepted the provisions of the First Morrill Act, signed by President Lincoln in 1862. This Act provided grants of land to be used by the states for the sole purpose of endowing, supporting, and maintaining publicly-controlled colleges. The Oregon Legislature directed that "all students sent under the provisions of this Act shall be instructed in all the arts, sciences, and other studies in accordance with the Act of Congress." Subsequent Federal legislation--notably the Hatch Act of 1887, the Second Morrill Act of 1890, and the Smith-Lever Act of 1914--provided further for the teaching function of the institutions as well as for programs of research and extension. Renamed Oregon Agricultural College at the time of its Land-Grant designation, the institution's name was subsequently changed to Oregon State College in the 1920's and to Oregon State University in 1961.

This year approximately 16,000 students will enroll in the undergraduate and graduate programs of the University's 12 colleges and schools, which offer a wide variety of programs in scientific, technological, professional, and liberal arts fields. By mandate of the Oregon

State Board of Higher Education, this is the maximum enrollment that the University is permitted to attain. Of this total enrollment, 79% are undergraduate students, 62% are men, and 85% are Oregon residents.

In recognition of the University's Land-Grant mission, OSU administers the Cooperative Extension Service in all of Oregon's counties, maintains branch agricultural experiment stations at several locations throughout the State, and staffs a Forest Research Laboratory on campus. OSU's Sea-Grant activities are conducted at the School of Oceanography on campus and at the Marine Science Center in Newport, the main coastal facility for the University's oceanography and fisheries programs.

Because it is a public institution, the University's interactions with the State of Oregon encompass every facet of institutional operations. Not only does the State oversee all activities funded from its general tax revenues, but also must grant approval for any use of federal monies in support of institutional activities. State general fund monies constitute about 65% of the University's total revenues; the remainder comes from the operation of auxiliary enterprises and from gift, grant, and contract funds. Governmentally sponsored grant and contract programs brought \$23 million to the University in 1976, predominantly from the Federal government. OSU's program of sponsored research is the largest in the State of Oregon, and among the top 60 in the nation. A second area of institutional operations reflecting a substantial Federal presence is student financial aids. Total awards administered through the University's Office of Financial Aid in 1976 exceeded \$6 million.

University Commission on Governmental Impacts

To accomplish, within the specified three-month summer period, this study of University/governmental interactions, President Robert MacVicar

convened in July 1977 a special University Commission on Governmental Impacts (UCGI). Due to the difficulty of soliciting widespread input for such a study during this period, the Commission was comprised of administrative officers having first-line responsibility for monitoring compliance with governmental regulations. Commission members were viewed as representing the areas of institutional operations within their official purview; this Impact Study, accordingly, reflects their perceptions of governmental interactions. The UCGI was comprised of the following individuals:

- Vice President for Administration
- Vice President for Student Affairs
- Dean of Undergraduate Studies
- Dean of Research
- Dean of Agriculture
- Registrar and Director of Admissions
- Director of Business Affairs
- Director of Budgets and Personnel Services
- Director of Physical Plant
- Director of Financial Aids
- Director of Affirmative Action
- Director of Safety
- University Counsel
- Vice Chairman of the Faculty Senate
- Professor of Nuclear Engineering

Many other University staff members also contributed important materials for the study. This Governmental Impact Study itself was prepared under the auspices of the University's Office of Planning and Institutional Research.

Upon agreeing to a study plan, the UCGI was subdivided into four committees (with overlapping memberships) to study in detail the following areas of governmental interactions:

Subcommittee 1: Employment and Personnel Administration

Governmental regulations regarding equal opportunity,

affirmative action, nondiscrimination, and other personnel issues.

Subcommittee 2: Students and Student Life

Governmental regulations regarding admissions, financial aids, records management, special student programs, and instructional activities.

Subcommittee 3: Sponsored Research

Governmental regulations regarding grant and contract research, the Agricultural Experiment Station, the Co-operative Extension Service, and the Sea-Grant Program.

Subcommittee 4: Facilities and Physical Plant

Governmental regulations regarding the health and safety of University students and staff, and access for the handicapped.

Each member of these subcommittees submitted individual written analyses of governmental interactions and impacts on institutional operations within the subcommittee's purview. These individual statements, as subsequently expanded and refined, form the basis for the Governmental Impact Study.

Governmental Impact Study

This study constitutes a comprehensive survey of University interactions with governmental agencies over the entire range of activities at OSU. Due to the brief time available for the study, such a comprehensive analysis must necessarily be less detailed than would be an examination of some specific segment of University operations. Although the limited depth of treatment possible in such an undertaking is unfortunate, a comprehensive analysis is vital to an appreciation of the full

magnitude of benefits and burdens realized in the University's interactions with governmental agencies. An in-depth analysis of a specific area of institutional operations can clearly highlight the institutional trade-offs between specific program benefits and the resource reallocations necessitated by compliance requirements. However, what is at the heart of the matter--and what is convincingly demonstrated only by a comprehensive survey of University/governmental interactions--is the onerous obligations that institutions bear by virtue of compliance requirements simultaneously mandated for an extraordinary number of governmental programs affecting literally every facet of institutional operations. It is this multiplicity of requirements, and their concomitant demands on scarce institutional resources, that provides the current severe challenge to effective institutional management. The substantial strain on University resources and internal relations resulting from institutional efforts to address effectively this full range of governmental regulations gives rise to the unusually emotional institutional denunciations of duplicative, ineffective, and frivolous compliance requirements.

To clearly emphasize the evolutionary (and accelerating) scope of governmental oversight and regulation of University operations, this Governmental Impact Study adopts an historical approach to the analysis of current University/governmental interactions. The report's unifying theme is an examination of the evolution of University activities and processes in those areas most strongly influenced by interactions with governmental agencies. Despite its comprehensive scope, this study attempts to maintain as concrete and specific an orientation as

possible. Accordingly, anecdotal materials have been generously used to illustrate exemplary or especially striking instances of University/governmental interactions.

STUDENT SERVICES

The area of student services presents a microcosm of the rich variety of interactions between Oregon State University and governmental agencies at all levels. These interactions, ranging from highly beneficial to distressingly dysfunctional, are particularly critical in view of their direct effect on the relationship between the University and its student body. As institutions of higher education now enter the era of decreasing student enrollments and correspondingly increased competition for a continuing share of the student market, the evolution of governmental influence on multifarious aspects of student services will necessarily have far-reaching implications for institutional health and survival.

The two principal areas of governmental oversight in the field of student services encompass issues of students' rights (including rights to privacy, nondiscrimination, and access) and student aid. Other areas of governmental concern and regulation also affect students, although more indirectly. These will be discussed in sections of this report dealing with instruction, sponsored research, and physical facilities.

Students' Rights

The principal federal regulations addressing issues of students' rights are Title VII of the Civil Rights Act of 1964 as amended in 1972, Title IX of the Education Amendments of 1972, the Rehabilitation Act of 1973, and the Family Education Rights and Privacy Act of 1974. Despite this formidable array of governmental legislation, however, a close examination of student services operations presents a valuable opportunity to refute a premise seemingly underlying a large body of Federal

regulation: that in the absence of strong and specific governmental intervention, the academy would remain insensitive to the sweeping social imperatives of this decade.

Just as the actions of governmental bodies at all levels reflect the social concerns of their constituents, so must the nation's universities be acknowledged to be social entities heavily influenced by prevailing social standards. A compelling demonstration of this fact is the rapid and almost total repudiation, commencing in the mid-1960's, of the view of the university in loco parentis. Impelled by insistent social demands, universities unilaterally (though often somewhat cautiously) relinquished a major portion of their superintendence of student conduct. Many of the rights and privileges accorded to students during this period foreshadowed governmental legislation ultimately responding to the same forces that had been earlier recognized by the universities.

Oregon State University is particularly fortunate in that its response to many of these social concerns of the 1960's very closely paralleled the requirements later promulgated as law. The effect of many of the governmental regulations cited above, therefore, has been minimal at OSU. Moreover, the climate of social responsiveness engendered by these earlier actions of the University has facilitated reaction to more recent legislative initiatives.

Title IX of the Education Amendments of 1972. As early as 1966, Oregon State University began to equalize the regulations governing student conduct to allow women students the same privileges as their male counterparts. Senior women were given key privileges (that is, no closing hours) as the first step in equalizing dormitory regulations. Shortly thereafter, the Associate Dean of Students drafted a position paper on

womens' regulations, including a timetable leading to the ultimate elimination of sex discrimination in policies regarding students. By 1969, student regulations had been changed to permit sophomore, junior, and senior women to live wherever they desired, and to eliminate all closing hours. Concurrently, coeducational residence halls were established and a program of intervisitation was adopted. By 1972, students of both sexes had regulations applied to them equally. As was the case at other universities, such a fundamental shift in University policy was undertaken and fully implemented prior to passage of Title IX of the Education Amendments of 1972 prohibiting discrimination on the basis of sex.

Because most universities have progressed relatively far in their efforts to eliminate sexual bias in areas of student housing and student conduct, the most active concern with respect to Title IX regulations is presently in the area of athletic opportunities. Oregon State University, in common with most other major universities, is still grappling awkwardly with these provisions of the bill in light of the complex and often intensely emotional issues underlying its athletic policies and practices. Preliminary steps have been taken to address inequities proscribed by this legislation: athletic scholarships have been instituted for women, efforts have been made to raise the quality of coaching in women's athletics, and more equitable physical facilities have been achieved in some sports. The cost to the university of many of these initial steps is difficult to estimate since some are becoming effective only with the academic year just underway.

What seems inevitable is that a more complete response to athletic provisions of the Title IX legislation will require not only a major

infusion of new funds into this area of the university's budget, but a concomitant fundamental restructuring of the philosophy underlying the funding of athletics at the University. To the extent that such athletic funding derives largely from individual donations and ticket sales, such a restructuring will mandate extraordinary efforts (and associated expenses) in external relations if continued funding of the University's athletic programs is to be assured.

Family Education Rights and Privacy Act of 1974 (Buckley Amendment).

University policy with respect to student records presents another example in which fairly restrictive Federal legislation has had little adverse impact on student services at OSU because of its prior response in this area of social concern. Oregon State University has centrally maintained extensive records on students since the 1930's. These records were available to the student as well as to certain personnel in the University, to parents, and to certain law enforcement agencies. In 1964, however, the University began a study of its policies regarding the retention of student discipline records and the release of information from these records to members of the University community and to outsiders. From the outset of this study it was recognized that both students and faculty should play primary roles in the development of standards for maintaining student records and for the enforcement of such standards. By 1966 procedures had been developed regulating the release of information from student discipline records and also the destruction of such records. Restrictions placed on access to student records allowed information to be released only with the student's permission.

The following year, the Registrar's Office developed a written policy regarding the maintenance and privacy of student academic records; this

policy was for the most part merely a documentation of what that office had already been doing for many years. A formal checklist of policies to guide the Registrar's staff on such matters was distributed in 1968. This checklist was also incorporated as part of a presentation made by the Registrar at a professional conference that year. The response received at that meeting to the checklist indicated that Oregon State University was quite likely the first institution in this part of the United States to formally document its policies in such a manner.

Further evidence of the University's recognition of the privacy rights of students is demonstrated by the 1969 joint action of the Oregon State University Faculty Senate and the Associated Students Senate in approving a bill of student rights, freedoms, and responsibilities. This bill provided for the separation of academic and disciplinary records of students, with stated conditions of access to each set of records. Transcripts of academic records were to contain information only about academic status, and such information, along with information from disciplinary and counseling records, was not to be made available to unauthorized persons on campus or to any persons off campus without the express consent of the student involved, except under legal compulsion. The bill also prohibited records to be kept that reflected the political activities or beliefs of students, and provided for the periodic routine destruction of non-current student discipline records. The bill further required administrative staff and faculty to respect confidential student data acquired in the course of their work, and granted students permission to inspect their disciplinary files. In addition to specifying policies for student records, the bill emphasized the student's rights of citizenship by, among other guarantees, requiring due process in all disciplinary hearings. The following year, the

maintenance of personal record files in the Dean of Students Office for all undergraduate students was discontinued. This decision followed determination that such student records sometimes contained subjective information that might not always be used in the best interests of the student.

All such action was taken prior to promulgation of the Family Education Rights and Privacy Act of 1974 (Buckley Amendment). As a result, the burdens placed upon centralized University offices (Student Services, Registrar, and Financial Aids) by enactment of the Buckley Amendment have been minimal. The act has required the university to further publicize to all students the details of the existing records policy, and to more strictly prohibit the accessibility of such centralized records to even members of the University community. Guidelines of the Buckley Amendment have been incorporated into the University's policy statements with regard to student records, and into official University publications. It is interesting to note that publicity accompanying the enactment of this new law prompted only four students to request access to their files in the Office of Student Services.

The time involved in revising Student Services' already restrictive records access policy and in devising means to publicize this information took the equivalent of one week's time of both an Assistant Dean of Students and the Associate Dean of Students. The Registrar's Office retyped their internal office checklist, incorporating several minor changes, and established a consent form by which students could authorize the release of personal information. Additionally, staff time in all student services functions was expended in periodic meetings at which provisions of the Buckley Amendment were discussed.

The only procedural problem experienced in implementing the Act was

an apparent conflict between Federal and State requirements with respect to so-called directory information that lists the names of students enrolled at the institution. A strict interpretation of the Buckley Amendment might support the right of a student to have such information withheld, but the University is currently adhering to provisions of state law declaring that a student's presence in a public institution is a public record that must be freely available.

Although the Family Education Rights and Privacy Act has not appreciably affected the internal operations of student services functions, this Act has had a considerable detrimental effect on the interactions of these administrative units with external agencies. For example, the Buckley Amendment limits the transfer of student information between educational institutions in the absence of assurance that the student has signed the appropriate release statement. This results in delayed action and the necessity for additional follow-up. A case in point is the considerable confusion now engendered in making financial aid awards to transfer students. The University is required to obtain a statement of previous aid before making an award to a student, necessitating not only correspondence with the applicant's previous school, but also information requests addressed to such organizations as Vocational Rehabilitation, Welfare, Food Stamps, and other social agencies. Obtaining such information in the absence of a student release requires considerable effort for all parties involved and greatly increases the time and costs of processing student materials. The Financial Aids Office estimates the annual cost of this added burden to their operations to be \$10,000.

While the effects of the Family Education Rights and Privacy Act on the internal operations of centralized student services has been minimal,

the impact of this Act on the student advising activities at a school and departmental level has been substantial. Because advising procedures in the various schools and departments vary considerably (from requiring each faculty member to advise an assigned group of students, to staffing a highly centralized advising center) the difficulties experienced under present interpretations of this Act take many forms. The following are representative comments from a few of the University's schools.

1. The School of Agriculture has traditionally included in our student files a number of items in addition to grades and official correspondence. Among these additional items were notes from instructors (both positive and negative), newspaper articles and clippings involving student activities or community service activities, and informal correspondence involving the student. Using these materials, we were previously able to make very specific and meaningful written recommendations concerning the student. With the advent of the Buckley Amendment, all these procedures have changed. Student files now carry little information except grades, making written recommendations largely valueless. While prior to the Buckley Amendment we often were able to communicate directly and effectively with parents who called or wrote us to express concerns about the progress of their children, today our attitude toward such inquiries is by necessity quite impersonal and cool as we are prohibited from supplying them with any meaningful information. Since most parents do not understand the implications of the Buckley Amendment, this change in our attitude can only work to undermine their trust in personal relationships with Oregon State University.

2. Student records maintained by the School of Home Economics are now less complete than in previous years, in part because faculty members are much more cautious in filing comments (many of which were often helpful to other faculty). Also, to an extent, students' records are now not available to faculty members -- often to the students' disadvantage; for example, this situation has discouraged "informal" counseling of students, which was formerly a strength in this School. As a case in point, there have been times when I was unable to obtain information from the Registrar without the student's written consent, even though the student was sitting in my office. A more pervasive effect arising from implementation of the Buckley Amendment is a general slowing of procedures that require the transmittal of information. The requirement for written releases has delayed the receipt of transcripts from job applicants and applicants for graduate school positions, ultimately delaying completion of applications by one to four weeks. The writing of recommendation letters is often delayed until students can be sent the proper form on which to indicate whether or not they desire to waive their right to view the recommendation. Also, since open files are now in the hands of students, they occasionally submit these files directly when applying for positions. I have been called upon several times to verify that such student-submitted materials are authentic.

3. The College of Liberal Arts remains unsure of common operating procedures that would seem to fall within the purview of the Buckley Amendment. Clearly, departments and individual

instructors are subject to the student privacy provisions of the Amendment, implying that the methods used to announce grades, to distribute tests and papers, to discuss individual student performance, and to perform other routine instructional practices are in fact regulated. In the absence of detailed operational instructions specifying University policies for compliance in such activities, most instructors presently continue to do whatever they want.

4. The Buckley Amendment has resulted in a noticeable decline in the usefulness of letters recommending students for graduate work in the Department of Fisheries and Wildlife. In reviewing some 250 to 300 applications for graduate work in the Department this year, we find that letters of recommendation are virtually meaningless unless privacy rights have been waived by the prospective student.

Despite these diverse and, quite often, significant difficulties experienced upon implementation of the Family Education Rights and Privacy Act, University personnel have most certainly become more sensitive to the student's right to privacy in the maintenance of records. In being asked to write letters of recommendation for open student files, faculty members are now more cognizant of the need to document their statements and remain objective in their analyses. These gains in social responsibility are counterbalanced by a documentable loss in organizational and personal efficiency, and a more qualitative diminution in informal, personal relations.

Title VII of the Civil Rights Act of 1964 as Amended in 1972. Oregon State University's early efforts in the field of civil rights for students consisted of discouraging discriminatory practices within student living groups and encouraging minority group members to enroll at the University. In 1967 the Dean of Students learned that national policies were compelling a local fraternity chapter to discriminate against a potential member. As a result of the University's subsequent investigation, the discriminatory national membership requirements were removed. Since that date, in accordance with State Board of Higher Education policy, student members of all living groups have remained free to select and to initiate whomever they choose without outside interference. In 1970 the principle of nondiscrimination was further emphasized by requiring all student organizations to include a nondiscrimination statement in their organization's constitution.

Formal efforts to recruit minority students began in 1966 when Student Services staff members held meetings with representatives from ethnic minority groups. The University's Educational Opportunities Program developed as a direct outgrowth of this series of initial meetings. In 1968 Student Services employed a Native American to be in charge of the Educational Opportunities Program. The Dean of Students relinquished a part of his office space to provide suitable accommodations for the program director. During the same year a Minority and Special Services Programs Committee was established. These efforts have culminated in the present existence of a large Educational Opportunities Program, an Upward Bound Program, formal cultural centers for black students, Chicano students, and Native American Indian students, as well as an active Women Studies Center and funded minorities and ethnic programs. The main thrust of

the University's response to the Title VII legislation, however, has been directed at policies and actions regarding faculty and staff members of the University. These will be described in detail in later sections of this report.

Summary. The University's response to social concerns in the field of student rights has quite often foreshadowed recent governmental legislation, substantially reducing the necessity for abrupt shifts in University policy or operating procedures. The burdens that have accrued from such legislation, although less readily identifiable, are nonetheless real. Federal actions regulating student affairs are consistently reflected in substantial burdens of communications. Because universities are by design decentralized organizations, and the student body as a singular entity is but a philosophical concept, a major task accompanying enactment of such legislation is the effective communication of that legislation to faculty, staff, students, and the diverse working and living groups through which they act. It is perhaps ironic that these difficult communication tasks, necessitated by escalating federal legislative initiatives, are further hindered by specific legislative acts (such as the Buckley Amendment) regulating communication processes themselves. To a large extent, centralized Student Services have been able to absorb increased communication and monitoring loads through adding to existing staff workloads and relinquishing time from other obligations. Although the incremental cost of these new burdens cannot, therefore, be reasonably estimated, neither should they go unrecognized.

Student Financial Aids

Centralized financial aid offices at many colleges and universities today are a direct outgrowth of federal and state programs of financial aid to students. The evolution of growth and responsibility of these offices in the last ten years testifies to the extensive role played by governmental agencies in providing educational opportunities for the nation's young men and women. Governmentally sponsored programs of financial aid to students, however, are not just a recent phenomenon. A century ago, states offered free tuition to Civil War veterans, and Federal assistance began in 1933 when the National Emergency Relief Administration authorized colleges to begin student employment programs under the auspices of the National Youth Administration. Federally sponsored Student War Loans evolved during the period of World War II, and subsequently the Serviceman's Readjustment Act of 1944 (G.I. bill) provided educational benefits to veterans of the War.

Federal involvement in financial aid programs escalated rapidly with the advent of the Soviet Sputnik satellite. One of the first programs implemented in that period of concern over national scientific needs was the National Defense Student Loan Program, funded under Title II of the National Defense Education Act of 1958 (and subsequently renamed the National Direct Student Loan in 1972). The program originally offered long-term deferred repayment loans to needy students majoring in science, mathematics, or education; later all students became eligible to apply for the program. The second major Federal program of student financial aid implemented in the post-Sputnik period was the College Work-Study Program authorized by the Economic Opportunity Act of 1964, designed to

expand part-time employment opportunities for needy students. The basic triad of large Federal programs providing student loans, work opportunities, and outright grants was completed through implementation of the Educational Opportunity Grant Program authorized by the Higher Education Act of 1965.

The Educational Opportunity Grant Program not only increased the ability of educational institutions to meet the financial needs of their students, but also had a major impact on the organizational structure and procedures by which such institutions administered these funds. As at many other colleges and universities, Oregon State University had until that time maintained a highly decentralized approach to student aid; diverse types of financial aid were available through many different individuals and offices throughout the campus. An important provision of the Educational Opportunity Grant Program required that a recipient student must receive other institutionally administered financial aid in an amount at least equal to the value of the Educational Opportunity grant. In order to insure adherence to this provision, OSU was forced to develop a centralized office to supervise and coordinate the awarding of financial aid. In the ten years since OSU's Financial Aid Office was established, its operating budget has increased from about \$60,000 to an amount this year in excess of \$240,000. Swelled by two very large programs of financial aid recently enacted--the Basic Educational Opportunity Grant Program and the Higher Education Act Insured Loans--the total student aid administered through the Financial Aid Office has increased five-fold during this decade, from \$2,000,000 to \$10,000,000.

State and Federal programs of student financial aid are extremely varied, not only in type of aid (loan, self-help, or grant) but also in their ease and cost of administration. Because governmentally sponsored financial aid programs today play such a vital role in assuring the viability of academic institutions, the following pages examine individually the most important student aid programs to illustrate the diversity and magnitude of burdens assumed by institutions administering these essential funds.

National Direct Student Loan Program (NDSL). The NDSL is an excellent loan program for students, granting up to ten years for repayment at an annual interest rate of 3%. The program is also attractive to universities because repayment monies may be recycled by the institution to allow continuing support for other students. Direct institutional control of these loan monies also alleviates many of the problems associated with the Guaranteed Student Loan Program, to be discussed later. Since its inception, this program has tripled in size at OSU, currently disbursing over \$2,000,000 in student loans. During its implementation at OSU, over \$13,000,000 has been loaned to over 11,000 borrowers under this program, with a current outstanding indebtedness of about \$9,000,000 owed by some 9,000 students. Although delinquency has been a problem nationally, Oregon State University possesses an extremely low delinquency rate of 2.7% (compared to 14% at the University of Oregon, 21% at Portland State University, and probably about 16% nationally). Many of these delinquent accounts are being slowly paid off, so that the ultimate default percentage will be even lower.

The growth in the NDSL program at Oregon State University has required the Office of Financial Aid to increase its staff by at least five, and the Business Office to add three FTE to its payroll. In addition, data processing activities for this program in the Office of Financial Aid cost about \$14,000 annually. Collections for NDSL are expensive for the Business Office to administer, with the majority of one staff member's time devoted to skip-tracing. This degree of effort could be considerably reduced if the Internal Revenue Service, Post Office, and Public Welfare agencies would cooperate in supplying addresses for individuals delinquent in these Federal loans.

College Work-Study Program (CWS). The College Work-Study Program has proved extremely beneficial for both recipient students and participating universities. Designed to help students earn while learning, this program has allowed students to work alongside their professors in a variety of activities and, whenever possible, in the student's major area of academic interest. When the CWS program was established in 1964, Oregon State University quickly recognized the potential benefits of this program. OSU was the first college in the nation to initiate a summer program incorporating off-campus agencies, with approximately 250 off-campus agencies contracting with the University under this program. In those early years, OSU was distinguished as having one of the largest programs in the nation, with students earning in excess of one million dollars in 1965. Needy students are by no means the only beneficiaries of the CWS program; these funds allow faculty members, departments, and off-campus agencies to perform many additional tasks,

conduct research, upgrade operations, and make more effective use of their professional time through utilization of College Work-Study students. OSU Work-Study students have performed valuable services for such agencies as the Corps of Engineers, Cooperative Extension Service, Bureau of Land Management, various public hospitals, and the Association for the Mentally Retarded.

Unfortunately, the College Work-Study Program is extremely difficult to administer due to timing difficulties and substantial paperwork burdens. Federal funding for this program has consistently been approved at a very late date, making it difficult for the Financial Aid Office to contact students in time to place them in full-time summer Work-Study jobs in their home communities. Many of the paperwork requirements reflect the fact that this program does provide employment; the University, therefore, is required through a variety of certifications to demonstrate that equal access, affirmative action, and other non-discriminatory practices were followed in the awarding of jobs. Various reporting provisions for this program (varying throughout the year) require the efforts of from one to four staff members devoting full attention to the program.

Supplemental Educational Opportunity Grant (SEOG). The Supplemental Educational Opportunity Grant program is the successor to the Educational Opportunity Grant program of 1965. This is a rather easy program to administer, and is most helpful to students because it does provide an outright grant. As was mentioned previously, the only provision of this program of substantive administrative concern is the requirement that any

student receiving an SEOG must also receive other institutionally administered aid in an amount at least equal to the value of the Supplemental Educational Opportunity grant. Compliance with these requirements involves an annual outlay of approximately \$2,000 in data processing and mailing costs, and the equivalent of two staff members to monitor over-awards and matching requirements.

The National Direct Student Loan, College Work-Study, and Supplemental Educational Opportunity Grant programs are usually referred to as "college-based" programs: the institution applies for all these funds on a single application, receives an allocation, administers the funds to eligible students, and provides the Federal government with an annual fiscal operations report. OSU's application for funds for the college-based programs comprises only nine pages, but requires at least six weeks of full-time effort from the Assistant Director of Financial Aid to assemble the appropriate data, as well as a substantial time commitment from the Director and other staff members assisting on a part-time basis. The fiscal operations report, although only eight pages long, also requires a considerable expenditure of time by the Assistant Director and several other staff members to complete, even though operations of the Financial Aid Office are highly computerized.

Guaranteed Student Loan/Federally Insured Student Loan Program. The Guaranteed Student Loan Program, authorized by the Higher Education Amendments of 1965, provides low-interest loans to students who do not qualify for the college-based programs. The loans are made by private lenders, and are insured by the Federal government or by State agencies, requiring substantial coordination between affected colleges and

universities, lending institutions, State agencies, the U.S. Office of Education, and other agencies. This is a very large program both nationally and at Oregon State University; this past year 1247 students received almost 1.5 million dollars in guaranteed loans. OSU's Office of Financial Aid devotes to this program the equivalent of three full-time personnel: a full-time staff member expends about one hour per student on typing, processing, disbursing, and other routine paperwork. Counseling such students requires the effort of at least a full-time staff member, and preparation of materials and data processing activities require the equivalent of another full-time staff member. The Business Office is not involved in the Guaranteed Student Loan programs, so the preparation of reports on each borrower and the notification of banks to verify student status and report changes constitute an ever-increasing burden on the Financial Aid Office as this loan program grows.

Basic Educational Opportunity Grant (BEOG). The Basic Educational Opportunity Grant, authorized by the Education Amendments of 1972, was designed to provide the "floor" of a student's financial aid package as a means of insuring equal access to post-secondary education. The student applies directly to the Federal government for this grant, and receives a Student Eligibility Report that is then submitted to the college of the student's choice; this is in direct contrast to the college-based programs, wherein the institution applies for Federal funds and receives an allocation that the institution distributes at its discretion. This process has turned out to be very complicated for the student, the parents, the high school counselor, the college aid

administrator, and the Federal government because of the separate application process required. Changes proposed to take place next year will eliminate much of this separate application procedure, expediting the awarding process and eliminating considerable duplication of effort for all parties involved.

When the BEOG was first proposed, colleges were told that they would not be involved in the program and, therefore, would incur no administrative expenses under its implementation. This claim was not widely believed; in fact, the institutional costs of administering this program have become significant. Oregon State University paid out more than 1.5 million dollars this year in BEOG funds, and must make quarterly reports throughout the year listing students that are receiving Basic Grants and the amounts of their awards. This program engenders additional unexpected costs because students can submit their Basic Grant application for the academic year as late as March of that year, obligating the institution to then pay out this stipend. Such an occurrence is likely to result in an over-award because other aid funds may already have been provided to the student; the University cannot deny the student the Basic Grant, and yet is unable to make a retroactive adjustment to prevent a resulting over-award. The Financial Aid Office estimates that it costs \$15 to process each Basic Grant, totaling to an administrative cost for the BEOG in 1976 of \$30,000. However, this Federal program includes no provision for reimbursement of administrative expenses.

Other Financial Aid Programs. The five programs described above account for nearly 90% of the funds administered by the Financial Aid Office; the remainder comes from smaller programs sponsored by Federal, State, and private agencies. As is often the case in such instances, many of the smaller programs impose proportionately greater administrative burdens than the larger programs, with limited provisions for reimbursing such expenses. The following are some of the programs that, although relatively small, are important contributors to the University's program of financial aids.

The Health Professions Loan Program provides low interest loans to students accepted at the professional level into OSU's School of Pharmacy. This program has been helpful to the University in that it frees National Direct Student Loan funds for use by other students. There are two noteworthy problems encountered in administering this loan program, again one a matter of timing and one an excessive paperwork burden. Historically, the National Institute of Health has not notified OSU until late August, just prior to beginning of fall term, of the exact amount of the institution's allocation. This has made it very difficult for the University to notify students in a timely fashion about aid opportunities, and undoubtedly complicates the student's academic and financial planning. Although the University's application for these funds is a relatively simple process, reporting provisions of this loan program require the Financial Aid Office to obtain Financial Status Review forms from each loanee throughout the academic year; this very questionable requirement increases the University's cost of administering the program by about \$3500 annually. The delinquency rate on Health

Professions Student Loans is even lower than that on National Direct Student Loans at OSU.

The University's program of aid to veterans has been affected by a variety of recent changes in policy by the Veterans Administration. Many of these actions were not unexpected in light of the increasingly liberal policies for veterans' educational payments implemented since the late 1960's. The abuses of these policies observed nationally in the approximate period 1972-1976 prompted the inevitable Congressional reaction, leading to a review of earlier legislative provisions. Unfortunately, the restrictive changes resulting from this Congressional concern did not have the benefit of adequate study prior to adoption; some of the new stipulations would, in fact, have been impossible for many institutions to administer accurately. The resulting outcry from colleges, universities, and educational associations led to significant modifications in many of the proposed restrictions on veterans' aid. However, students are now expected to make progress toward their educational objectives in line with minimum standards for achievement, eliminating at many colleges and universities numbers of veterans enrolling simply to obtain their financial benefits. The placement by the Veterans Administration of a Veteran's Counselor on campus at OSU has helped considerably in keeping veterans informed of changes in the program. There are still instances, however, when the system does not run smoothly; the Financial Aid Office often must adjust its policies to provide funds to veterans because the Veterans Administration has for some reason not disbursed monies to the student or has changed their payment schedule.

Programs of financial aid administered to Native American Indian students include Bureau of Indian Affairs (BIA) scholarships, tribal scholarships and grants, and other Native American programs. This is, proportionally, a very expensive program to administer because each of the BIA regions uses different procedures and practices. Grants are not approved until the University has forwarded to the appropriate BIA region a financial need analysis report and a recommended package of student aid for each student. The BIA often makes adjustments to these packages, requiring the Financial Aid Office to make appropriate revisions upon receiving this information back. It is estimated that 250 hours of staff time are expended on the BIA grant program, with only 20 or so students participating. The communications and procedural difficulties characteristic of this program have resulted in several instances in which the BIA has not been able to send students their checks in a timely manner.

Another federal program imposing administrative burdens proportionally far in excess of other programs is the Law Enforcement Education Program, generally known as LEEP. This program, operated by the Department of Justice, provides funds for personnel presently involved in law enforcement activities to take courses at OSU to upgrade their skills in law enforcement administration. Although Oregon State University usually has only two or three students qualifying under this program each year, Financial Aid staff devote approximately 60 hours annually to assist these students and to prepare the many voluminous (and seemingly unnecessary) reports required by LEEP.

Finally, the Financial Aid Office is deeply involved with the Oregon State Scholarship Commission in the administration of the State Need Grant and the State Cash Award programs. Verifying continued student eligibility, posting all State awards to assure there is no over-awarding, updating continual composite awards lists of the Commission, and serving as the intermediary between the student and the Commission continues to cause administrative problems for the University from time to time. These burdens, however, are being ameliorated as these procedures become increasingly computerized and refined.

Administrative Perspective. As has been described above, the administrative effort and expense associated with participation in various programs of student financial aid is often substantial. Governmentally sponsored programs vary considerably in the extent to which they incorporate provisions to help defer these expenses, and some of the most difficult programs to administer provide no administrative expense monies at all--notably the Guaranteed Student Loan and Basic Educational Opportunity Grant programs. The administrative reimbursement for the college-based programs has undergone recent change: originally, the National Defense Student Loan Program provided 1% of the total loan dollars outstanding. The College Work-Study Program provided 5% of the monies earned by students working with off-campus agencies, and no expense monies for wages earned by students on campus. No administrative allowance was provided for the Educational Opportunity Grant Program. Under the 1972 Education Amendments, however, the administrative expense reimbursement policy was altered to provide institutions 3% of the dollars earned by students from the three programs.

Without that assistance, many educational institutions would have been hard pressed to comply with requirements for administering the programs.

At Oregon State University, 38% of the present budget of the Financial Aid Office derives from the 3% administrative expense reimbursement. New staff members, equipment, and increases in general office expenditures have all been funded from these 3% monies; less than 1.0 FTE has been provided from State funds for financial aid staffing since the inception of the Financial Aid Office in 1966. Just this year, the Federal administrative expense reimbursement was raised to 4%. In regards to the National Direct Student Loan Program, however, this increased administrative allowance is still inadequate to cover the costs of both granting and collecting the loans. It is estimated that the Federal administrative monies for the NDSL program fall short of needs by about \$10,000 annually.

Too prolonged a discussion of administrative reimbursement policies, even though of appreciable concern to the Business Office and Office of Financial Aid, threatens to obscure a much more fundamental issue. There can be no doubt whatsoever that Federal and State programs of student financial aid have been immensely beneficial to the nation's colleges and universities--occasionally even to the point of being the principal vehicle by which the viability of the institution is maintained. Recognizing this fact, discontent by educational institutions over less-than-full administrative expense reimbursements may seem picayunish. The need for institutional reimbursement, however, is a direct consequence of the unnecessary paperwork burdens and convoluted procedural requirements mandated by many of these programs. The primary impetus leading to the development of student aid programs was, after all, not the

need to help the nation's colleges and universities. Rather, the Federal government espoused a partnership encompassing Federal and State agencies and the educational community that would together work to expand educational opportunities for the nation's youth. It is the obvious inconsistencies between this declared purpose and the existing maze of procedural and paperwork obligations accompanying financial aid programs that provide the basis for reasoned institutional complaint.

For example, the problem of untimely Federal allocations consistently impedes the attempt to provide effective financial aid services to the University's students. It would seem to be in the government's best interest to appropriate student aid funds at least one year in advance, thereby assuring the U.S. Office of Education sufficient time to process institutional applications and to determine institutional allocations no later than February 1 of each year. Instead, institutions are usually notified in late May, making it extremely difficult to develop student aid packages and to notify students--especially so in the case of summer term programs, for which students now receive their aid notice only a week or two before the term commences. Untimely governmental allocations have also encouraged institutions to "gamble" on expected allocations in order to provide earlier notification for their students. It is a poor reflection on the Federal government, as well as a costly reality for universities, that the time tables set by the U.S. Office of Education have very seldom been met.

It is Federal policy that regulations be published within 180 days of the passage of Congressional action. However, regulations have not yet been published for the Education Amendments of 1972, except in the

case of the College Work-Study Program (and even those regulations are not adequate because they have not been updated to conform with the Amendments of 1976). Regulations for the National Direct Student Loan and Supplemental Educational Opportunity Grant programs are still in the "interim" stage. The entire process of rulemaking with regard to financial aid is alternately overly long and tedious, or extremely abrupt and confusing. For example, Federal agencies are now in the process of critically reviewing application procedures for student aid funds. Accordingly, institutions were promised that the application procedures for 1978-79 would not be changed, yet such changes appear to have taken place. Although agencies are required to publish such new application procedures in the Federal Register and provide 45 days for public comment and response, OSU received the new application forms long before the 45-day period had elapsed. To illustrate the other end of the spectrum, revised operating manuals for some Federal programs have not existed since 1968.

A further source of extreme institutional frustration is the needlessly complex, costly, and occasionally unfair application process for Federal funds. For example, this past year two of the ten regional offices did not comply with the national guidelines from the U.S. Office of Education in determining institutional allocations. Two OSU staff members spent approximately one month attempting to obtain fair treatment for this institution and other Oregon schools. Regional offices have also ignored Federal requirements that instructions for the preparation and processing of applications be sent to institutions in a timely fashion. Some reporting demands made on institutions are

so unreasonable that effective administration of the associated aid program becomes nearly impossible. It is institutional expenses associated with such procedural obstacles and inappropriate paperwork burdens--circumstances that seem entirely inconsistent with the professed ideal of governmental and university partnership--that have prompted concern over inadequate Federal reimbursement of administrative expenses.

SPONSORED RESEARCH

Cooperation between Oregon State University and governmental agencies in support of research activities has characterized the history of this institution since the Hatch Act of 1887, which encouraged agricultural research in state colleges of agriculture and mechanical arts. Agricultural research remained a principal focus of governmental sponsorship until the time of World War I. In the period following World War II, research funding by the Office of Naval Research, and later the National Science Foundation, the Department of Agriculture, the Office of Education, and numerous other Federal agencies increased to such an extent that in 1966 Oregon State University found it necessary to establish a centralized Office of Research. In that year, research grants and contracts accounted for \$6.8 million out of a total grants and contracts program funded at \$14.1 million, with the difference between these two figures consisting largely of support for fellowships, equipment, and facilities. By 1976 the total Federal support for research grants and contracts at OSU amounted to \$16.7 million out of a total of \$23.0 million. In order to handle this expansion in grants and contracts activity, an Assistant Dean of Research was added to the Research Office in 1972, and an assistant to the Dean of Research was added shortly thereafter.

The annual budget of the University's Research Office has reflected the growth of research activities at OSU. Research Office funds, which are used to support office operations and to selectively initiate and stimulate research activities throughout the University, have grown from a total of \$86,000 in 1966 to \$360,000 in 1976.

Impact of Research Support

There is no doubt that the Federal government has had an overwhelmingly positive impact on research activities at Oregon State University. During the decade from 1966 to 1976, more than 85% of the research funds at OSU originated from the Federal government. A number of programs would not exist at the institution were it not for Federal grant and contract support. Perhaps the most notable example is the University's program in marine science, which presently accounts for 25% of the total research program at OSU; this program derives 92% of its funds from non-state sources.

Federal support of research has also had an obvious beneficial effect on the University's instructional programs. The existence of Federal funds has made possible an enlargement of the institution's faculty, thereby increasing not only its research but also its instructional capabilities. The indirect effects of such research funds on both graduate and undergraduate curricula have been significant. For example, Federal grants have allowed the purchase of sophisticated equipment that, in many cases, ultimately finds use in the instructional programs. Finally, research grants allow the University to support graduate students through graduate research assistantships, allowing these students to gain valuable experience while working at the forefronts of scientific research.

A less commonly recognized impact on instructional programs brought about by Federal research grants and contracts relates to the University's organizational structure. Although most research at Oregon State University is carried out within academic departments, it has been increasingly obvious that the complexity of research problems requires the interaction of

researchers from varied disciplines. In order to accommodate and nurture this interaction, a number of interdisciplinary institutes and centers have been established. In addition, other centers have been created to provide special support services to all researchers. Some of these institutes and centers are listed below, together with their dates of inception. This listing, although incomplete, illustrates an important mechanism of university response to changing trends in governmental research priorities.

Water Resources Research Institute	1960
Transportation Research Institute	1962
Genetics Institute	1963
Nutrition Research Institute	1965
Nuclear Science and Engineering Institute	1966
Environmental Health Science Center	1967
Sea Grant Program	1968
International Plant Protection Center	1969
Environmental Remote Sensing Applications Laboratory . . .	1972
Laboratory Animal Care Facility	1972
Survey Research Center	1973
Energy Research and Development Office	1974
Manpower Studies Institute	1975
Climatic Research Institute	1976

Variations in the nature of Federal research funding during the past decade have required that Oregon State University adjust its research programs to best take advantage of these trends. Although one may easily identify recent shifts in Federal funding priorities among subject areas as different problems have captured the nation's attention, other more fundamental changes in federal philosophy regarding research grants and contracts are of substantial concern to the academic research community. One such development is the shift in emphasis over the last decade from basic to applied research. Obviously, faculty members wishing to take full advantage of the availability of federal funding during this period have found it necessary to appropriately reorient their research programs

to reflect the growing stress on application. Researchers who would have justified a project in terms of its fundamental nature a decade ago are now finding it increasingly propitious to stress the applications of their research.

A second trend having far-reaching implications for academic research is the growing Federal reluctance to award institutional block grants. Such institutional grants are ordinarily awarded according to formula, based on the amount of funds brought to an institution through normal competitive project awards. The justification for institutional grants lies in the increased efficiency of local management of scientific programs. Such grants are used to stimulate and enhance research activities through the awarding of funds for pilot studies and other exploratory activities. In one department at Oregon State University, an award of \$3861 to initiate a research program resulted in the acquisition of a contract for \$119,243. In the same department, initial monies from institutional block grants and from internal sources, amounting to something less than \$14,000, resulted in the development of a \$300,000 extramural research program.

Although these examples of program development are salutary, no less important is the impact that institutional grants have had on individual faculty members. Recently an OSU professor was awarded a grant of \$756 from institutional sources. As a result of his activities under this small grant he was invited to join the editorial board of a major journal, was able to present a paper at a significant professional meeting that resulted in a further invitation to address a special session of another society, and was subsequently awarded a \$2400 summer fellowship to work

with one of the country's leading authorities in his area of expertise.

As further examples, a grant of less than \$1700 to a professor of psychology made possible a shift in direction of the individual's career that would not have been possible without the award. An award of \$1840 to a professor of zoology resulted in a number of publications representing significant advances in knowledge in his area of study. The existence of institutional block grants, therefore, has had a profound positive influence on both programs and faculty at Oregon State University.

Perhaps the most disturbing trend in research funding philosophy -- a trend that appears to be the logical culmination of the new emphasis on application and the disinclination to award institutional block grants -- is the increasing tendency of Federal agencies to earmark research funds for specific short-term projects promising almost immediate and visible "benefits". To the extent that all governmental agencies are, in a sense, competing in an increasingly competitive environment to justify their existence, it is only natural that they favor research projects focused on the exciting issues of the day and promising quick payoffs. This tendency is clearly manifested by the increased earmarking of educational and research funds, all in the name of assuring institutional responsiveness to societal needs. By nature, such earmarking of funding is highly oriented to the short term, overlooking the reality that changes in research emphasis are costly and that too many changes in direction are, in fact, self-defeating. These funding practices certainly do not encourage the kind of stability over a long period of time that is required to carry out solid research programs and to achieve significant research findings. In addition to discouraging the establishment of long-range research plans, particularly those of a more basic nature, this approach to research funding

also consistently frustrates those creative researchers who espouse innovative projects not necessarily coinciding with the agencies' perceptions of immediate research needs (even though agencies might acknowledge such projects to be in concert with their long-run goals).

If such short-sighted funding strategies are of ultimate detriment to the nation, they are additionally inappropriate to academia by virtue of the time constraints involved. Because of the short-term nature of many of these research projects, it is not possible to develop hiring practices for senior faculty members based upon these funding sources. Hence, a greater share of work is of necessity done by less experienced persons who are willing to accept fixed-term appointments and who, concomitantly, may not bring to this work the full dedication of a career-building faculty member. These research projects tend to impose short deadlines for preparation and submission of relatively complex research proposals, short start-up times and, all too frequently, too short a time for project completion. Such conditions require that a disproportionate amount of faculty time be spent in project negotiations to support research work on a continuing basis.

One final trend in federal research funding policies deserves mention. During the late 1960's grant and contract research funding at Oregon State University constituted 47% to 55% of the total grant and contract funds brought into the University; the remainder, as mentioned previously, was largely in the form of grants for fellowships, equipment, and facilities. Toward the end of that period Federal agencies stopped allocating funds for facilities. Also during that period, an apparent oversupply of Ph.D.'s began to be recognized. This resulted in the elimination of many fellowship programs, making it increasingly difficult to obtain support for graduate students in their studies. As a result of this change in federal

funding policy, by 1972 the research portion of OSU's total grant and contract funding had climbed to about 70% of the total. Although research funding has grown rapidly from 1970 to the present, the total grant and contract support for Oregon State University has not kept pace. The resulting lack of support for graduate students is thought to have had a significant effect on the institution's ability to attract graduate students for advanced studies.

Research Accountability

Although levels and trends in governmental funding of research have had profound effects on Oregon State University, it is the impacts of rules and regulations that seem to draw the most active attention of the University's faculty and administrators. For purposes of this report it will be convenient to here single out those rules and regulations governing the administration of grant and contract research activities; other regulations speaking to such concerns as affirmative action, safety, and the protection of human and animal subjects will be discussed later.

The acceptance by the University of Federally sponsored research grants and contracts carries with it the responsibility for accurate billings to the government based on actual expenses incurred in specific grant and contract activities. The "administrative" regulations setting forth these responsibilities have mandated increased levels of accountability in financial activities, particularly regarding salary substantiation, cost transfers, cost sharing, and equipment purchase and maintenance. Although accountability for resources expended is acknowledged to be a necessary and reasonable obligation on the part of the institution receiving Federal funds, it appears that Federal auditors may be losing sight of the objectives of such funding by demanding detailed accounting

for inputs with no apparent consideration or weight given to outputs. A Federal philosophy that says, in effect, "Yes, we acknowledge that you accomplished and delivered what was contracted for, but we do not have a sufficiently detailed accounting of your time expenditures and, therefore, cannot disburse federal funds for what you have done," might be characterized as merely misguided. But regulations which go on to say, "Yes, you spent enough hours working on the Federally funded project, but the proportion of time spent on this project by your scientists differs from original estimates," baffles and frustrates even the most conscientious of researchers and administrators.

Auditing practices seem to assume that research and other academic pursuits are conducted on an eight-hour day, five days a week. In fact, however, most research activities are more accurately characterized by intermittent periods of activity, varying both in length and intensity. Many research procedures have built-in "delays"; animals must grow on experimental diets, generations of plants or animals must be observed, preparation of tissue sections, cultures, crystals, etc., is quite often a meticulous and time-consuming process. Unplanned delays are also commonplace; computer programming errors must be found and rectified, air leaks in vacuum systems must be detected and repaired, impurities in reagents may negate previous experiments, and so on. During such delays, the researcher intensifies work on other projects simply to make the most efficient use of time (and Federal money). Auditing practices, however, seemingly cannot accommodate such irregular work procedures.

The major impact of accountability regulations falls on the University's Business Office and on the principal investigators of research grants and contracts, the designated individuals responsible for the fiscal and scientific management of Federally funded projects. The costs of handling

the complex paperwork associated with time and effort reporting on Federal grants and contracts are substantial and ascertainable. Federal Management Circular 73-8 states that professional salaries for research personnel must be reviewed monthly after the fact by supervisory personnel having first-hand knowledge of the employee's activities. If there is a variance of five percent between the percent of effort for which the individual is charged on the contract and the way the individual actually expends his or her effort, there must be an accounting entry made to correct this variance. In the first six months of 1976, such salary substantiation procedures resulted in the submission of 2500 Personnel Action forms to the Business Office for payroll adjustments to researchers reflecting variations in the level of effort expended the previous month. Considering the time required for supervisory personnel to complete these certifications of effort, and for accounting and payroll personnel to incorporate these changes into payroll files, we estimate that this Federal requirement costs the University about \$300,000 a year more than would be spent if such after-the-fact certifications were required quarterly rather than monthly.

There are other aspects of grant and contract funding that require unusual and costly handling by university administrators. For example, there is a continual problem of consistency of regulations among different federal agencies. A lack of uniformity in expenditure reporting, handling of government-furnished equipment, and payment procedures among agencies of the federal government creates an additional unnecessary workload. Such inconsistency in requirements probably accounts for one FTE per year in the Business Office, totalling about \$14,000.

Another area of concern deals with certain interactions between the University and Federal auditors. Distressingly often, the Federal Government has sent to Oregon State University auditors who are, at best, poorly

trained. Such government personnel have raised unnecessary and inappropriate questions that have required University appeal through an audit resolution office, requiring staff and travel time. During this past year, OSU has expended about \$6,000 in travel and personnel costs attempting to resolve some audit questions that should never have been raised. The University has also been troubled by delays in auditing individual contracts which, in turn, causes a delay in receiving final payment from the Federal government. Accordingly, some costs associated with research activities must be borne by the State government until such time as Federal funds are received. The State of Oregon could receive as much as \$10,000 a year in interest if Federal payments were made more promptly.

It must be noted, a bit ironically, that many of the administrative costs described above are to a greater or lesser extent ultimately paid for by the Federal government through direct or indirect charges to Federal research grants and contracts. The true costs of such Federal rules and regulations, therefore, is perhaps reflected less in the expenditure of University funds than in the frustrations of mandated inefficiencies in the administration of research and in the loss of enthusiasm and excitement on the part of the research community.

OSU Extension Service

An important class of governmentally sponsored activities unique to Land-Grant institutions such as Oregon State University are the programs of the Cooperative Extension Service. Although Extension Services at Land-Grant universities throughout the nation exhibit varied organizations and emphases, they share some important characteristics. These include not only their sources of financial support, but also the Land-Grant tradition

that establishes their fundamental purpose. Financial support for Cooperative Extension programs is provided by a combination of three major sources: the Federal government through the U.S. Department of Agriculture, state governments, and county governments. The educational programs of the Extension Service are based on the application of new knowledge developed primarily, although not exclusively, at Land-Grant institutions to the problems expressed by the state's citizenry. During more than 60 years of service to the nation, Extension Services have prided themselves on the responsiveness of their educational delivery systems to the needs, problems, and concerns identified by local client groups.

An analysis of Extension Service programs is pertinent to this governmental impact study because a significant change in Extension activities has resulted from many of the broad legislative programs enacted recently by the Federal government. Extension agents half a century ago acted primarily as sources of useful information, helping farmers surmount problems encountered in producing better crops and livestock. By contrast, Extension agents today are called upon to help people cope with the pressures of social, political, and economic changes as often as they are called upon for agricultural advice. Thus, a major impact on the Extension Service of recent Federal legislation is felt as an indirect, two-step process in which governmental regulations affect the lives of individuals, families, or institutions, who then ask the Extension Service for educational programs to help them respond. In recognition of such local needs, the Extension Service adjusts its priorities, modifying existing programs or developing new programs to help its clients meet the challenges of government mandates. There is, of course, an opportunity cost involved in such

client-oriented action: staff resources that are devoted to helping citizens respond to or comply with governmental requirements cannot be applied elsewhere.

A clear illustration of this two-step process by which governmental legislation affects the University through its Extension Service is provided by the Federal Water Pollution Control Act Amendment of 1972, or the Clean Water Act. This Act specifies a three-stage approach to statewide water quality management: state and local planning, interim compliance to the extent practical, and by 1983 the "best available" compliance measures. In Oregon, this law had immediate impact on many clients of the Extension Service. In forestry, the State's leading industry, those affected included state and local agencies having enforcement responsibilities, watershed and forest managers, land owners, loggers, municipal water users, and many others. In agriculture, another of the State's major industries, those affected included farmers and ranchers, irrigators, feedlot operators, land owners and developers, and agencies concerned with erosion and flooding. In Oregon's large seafood processing industry, the new legislation affected 6200 commercial fishermen and almost 40 seafood processing firms, as well as consumers of their products. Increased public awareness of clean water standards was also reflected in concern among Extension's homemaker clients about selecting nonpolluting household cleaners and detergents. Similarly, home owners expressed increased interest in learning how septic systems or water treatment systems operate to reduce water pollution from household use.

Forestry. The Clean Water Act specifically addresses the concept of area-wide treatment management for non-point source pollution. In the forests, this means attention to control of sedimentation, erosion, water temperature, debris, and other aspects of water management related to methods used in road building and logging. Because Oregon State University had developed a leading program of research on watershed management, Extension foresters were under considerable demand for information upon passage of the Act. Staff members were sought out by regulatory agencies, owners of both large and small landholdings, loggers, environmental groups, and others. In response, the Extension Service rapidly expanded its program in this area: an Extension specialist in watershed protection was hired, major conferences on forestry practices were initiated, several publications on forest road construction were produced, training programs were developed for regulatory officers, and field tours were conducted for local government officials overseeing watershed protection measures. Specific educational programs were developed to address areas of greatest difficulty: grass seeding of roads, water temperature control, biological water impacts of logging, landslide and mass soil movement control, and adoption of new logging systems. As local government officials began to recognize their enforcement obligations under the Clean Water Act, they found their knowledge to be seriously deficient in many areas of water quality management. The Extension Service responded to these local governmental needs through a variety of programs stressing not only fundamentals of watershed management, but also practical aspects of regulatory enforcement. In light of their new understanding of forest practices stemming from these educational programs, many regulatory officers were

prompted to revise compliance guidelines they had earlier promulgated. Current commitments by Extension forestry to educational programs supporting the Clean Water Act comprise about 1 1/2 man-years annually, a dollar commitment of about \$40,000 per year. This activity supporting the Clean Water Act has necessarily come at the expense of other high priority areas in State forestry, such as silviculture, forestry measurements, and marketing alternatives for woodland owners.

Agriculture. OSU's Cooperative Extension Service has provided a variety of assistance to help the agriculture industry respond to the Clean Water Act. Extension agents informed farmers, ranchers, and feedlot operators of the Act's requirements for a National Pollutant Discharge Elimination System. Extension agents and specialists participated in hearings for each of the State's 19 river basin water quality management plans, and disseminated information about the Act's restrictions on dredging and filling operations. The continuing activity of Extension agents in these educational programs for agricultural clients, service on water quality committees in many of the State's counties, and participation in water quality meetings directed to the general public requires the annual equivalent of 500 man-days of professional staff time--an annual dollar commitment in excess of \$30,000.

Seafood. The impact of the Clean Water Act upon Oregon's seafood industry derives from the requirement that seafood processors eliminate discharges of plant wastes into rivers and harbors. Solid wastes from the plants included large quantities of crab and shrimp shells that the Act precluded from returning to the waterways. Landfills provided no alternative method of disposal because landfills are scarce on the Oregon coast and because

seafood wastes cause sanitation problems in such fills. The Extension Service's Marine Advisory Program responded quickly to this problem through a 1973 study analyzing the characteristics of seafood waste products and alternative technologies for disposal. This study, requiring six man-months and over \$9000 in costs, was financed from Federal Sea-Grant funds. Subsequently, with continuing support from the OSU Sea-Grant program and expertise from the University's Soils Department, the Extension Service initiated a study of the use of seafood wastes as fertilizer on coastal soils. The encouraging results from these studies have prompted processors to begin delivering their wastes for agricultural use; in one of the affected seaports, a farmer's cooperative has been formed to provide a reliable distribution system. The continuing efforts of the Extension Service's Marine Advisory Program in this area, although scaled down from recent activity levels, represents an annual allocation of slightly less than 1 1/2 FTE, or about \$50,000.

Other Extension Programs

Other governmental legislation has brought about demands for Extension educational programs directed to a variety of constituencies. The following examples illustrate the diverse nature of the requirements placed on the University through demands made on the Extension Service's capabilities.

The Occupational Safety and Health Act of 1970 brought calls for Extension Service help from many different client groups. Extension forestry was requested to mount educational programs addressing safety concerns for workers, mill managers, supervisors, loggers, and woodland owners. Agricultural Extension specialists and agents participated in

developing standards and sponsoring seminars in such areas as equipment guarding, use of agricultural chemicals, tractor roll-over protection, rights and responsibilities of employers and employees, and first aid training.

The National Environmental Policy Act of 1969 provides an example of Federal legislation that impacts on governmental agencies who, in turn, look to the Extension Service for assistance in their compliance efforts. The National Environmental Policy Act requires Federal agencies to prepare environmental impact statements on major actions or programs having significant effects on the human environment. In 1975 the U.S. Department of Agriculture provided special funds to the OSU Extension Service to develop materials and a public participation process for identifying potential impacts of Federal projects. Subsequent activities in assessing impacts of local land development led to the production of several technical and educational materials, including an environmental impact assessment form and manual, a resource handbook, and a slide-tape educational program. These materials have been distributed statewide in Oregon and to many other states.

University records from nearly a century ago include letters from Oregon's farmers who looked to their agricultural college for information on controlling the insects, diseases, and weeds that devastated their crops and livestock. When Congress amended the Federal Insecticide, Fungicide, and Rodenticide Act in 1972, the Extension Service was designated nationally by the Environmental Protection Agency to train people seeking certification for the purchase or application of chemicals on the Act's restricted list. The necessary teaching and examinations package was developed jointly by the Oregon State University Extension Service and the State Department of

Agriculture, encompassing such topics as understanding pesticide labels, proper pest control measures and formulations for pesticides, protective equipment and clothing, the nature of pesticide poisoning, and the use of sprayers and application equipment. This training effort has required the direct involvement of some 45 OSU Extension professional staff over a two-year period.

These examples illustrate how governmental actions directed towards individuals and institutions external to the University can nevertheless substantially impact an important segment of the University's programs. The traditional Extension Service emphasis on educational programs bringing newly developed knowledge and technological advancements to the attention of its public is being fundamentally altered by recognition that Federal legislation affecting Extension's clients cannot be ignored as a major program influence. Unfortunately, legislation is unpredictable; it is difficult to anticipate specific governmental requirements on clients until the legislation has been enacted (and, sometimes, tested in court). This has made it increasingly difficult for the Extension Service to establish effective planning horizons and to approach with confidence its own lengthy budget-making processes. Since many Extension Service personnel also participate in other research and instructional activities of the University, the increasing incidence of abrupt and unexpected demands from Extension on the time of these staff members has repercussions felt throughout the University.

Humane Procedures

Before ending this discussion of governmentally sponsored activities, it is appropriate to mention several recent Federal regulations whose impacts on the University's programs are especially pertinent to research endeavors. These regulations set forth guidelines and conditions for the permissible use of human subjects in research activities, the humane treatment of warm-blooded research animals, and the protection of various species of animals. Many of these areas of Federal regulation obligate the University to provide some type of monitoring mechanism, for which purpose several different faculty committees have been established. As compliance procedures have been institutionalized, much of the routine work of such committees has been delegated to staff members whose jobs involve providing service to the campus community in the area of concern. For example, Research Office staff members screen most of the proposals involving the use of human subjects; the activities of the Animal Care Committee are carried out principally by the Director of the Office of Laboratory Animal Resources. The specific extent and effects of University response to each of these areas of Federal regulation are discussed on the following pages.

Use of Human Subjects. Federal regulations establishing conditions and procedures for institutional approval of the use of human subjects in research were promulgated in 1973. These governmental guidelines affect many instructional and research activities at OSU. Disciplines such as Family Life, Psychology, Health and Physical Education, Food Science and Nutrition, Pharmacology, and Education have for many years conducted research involving the participation of students in undergraduate and

graduate classes, as well as subjects external to the institution. The impacts of these regulations on instructional and research activities range from minimal to quite severe; the following examples illustrate these two extremes.

The Family Life Department of OSU's School of Home Economics reports that these regulations have severely hampered research activities in the University's Child Development Laboratories. Parental participation in many projects has declined to one-half of former levels, causing several research projects to be abandoned after a full year's work. Many potential subjects appear to use these regulations as a convenient excuse when they do not want to take the time to participate. The Department reports that these developments have adversely affected both the quality and quantity of faculty and student research. An undergraduate course in research methodology has had to discontinue a pedagogically valuable data collection exercise, and graduate students have been hampered in preparation of their theses and dissertations.

In addition to these direct impacts of Federal regulations limiting the use of human subjects, there have been several indirect effects worth noting. For example, the fact that subjects may refuse to participate at any time during the experiment makes procedures incorporating a pretest-posttest design extremely risky. Also, there is now an unknown (and logically unknowable) bias inherent in the data: in what ways do subjects who choose to participate differ from those who do not? This apparently unsolvable

dilemma sows ultimate doubt on the validity of any experiment using human subjects. A final indirect effect that has been observed is the apprehension and undue concern raised in the participant by the obligatory procedures for explaining to the subject his rights, and documenting his informed consent. The unsettling formality of these procedures has resulted in a higher dropout rate and a correspondingly increased cost of research.

Many of the difficulties experienced by the Family Life Department derive from the fact that subjects for research activities in this Department are preschool children and their parents. Much less of a problem has been encountered by instructional units whose research subjects are most commonly University students.

The Psychology Department reports that guidelines regulating research on human subjects have significantly affected neither research nor instructional efforts. Research protocols used in this Department specify provisions for the informed consent of participating subjects, including assurances (a) that the anonymity of students will be protected, (b) that subjects will be given as complete a description of the purposes and methods of the study as possible, and (c) that students' grades will not depend on their willingness to participate. However, individual research projects by members of the Department's faculty using subjects external to the University have been somewhat more affected by these regulations. For example, one faculty member's research with drugs and hospitalized patients has been fairly seriously inconvenienced; informed consent for drug studies requires careful

planning, and human subjects committees in hospitals have become much more cautious in their approval of research under the new Federal regulations.

Research projects that include the use of human subjects are reviewed at OSU at the time of proposal submission to the University's Research Office. It should be noted that the vast majority of these proposals involve human subjects only to the extent that selected persons are sent questionnaires and requested to participate by completing the questionnaire. If staff members of the Research Office have any question as to the propriety of the proposed use of human subjects, the research proposal is forwarded to the Human Subjects Committee. Since the inception of this procedure, approximately 600 proposals have been processed by the Research Office, of which 372 have been forwarded to the Human Subjects Committee for review. Of the proposals that did not pass this review, 70 were approved after incorporating changes suggested by the Human Subjects Committee, and 14 were denied approval. For proposals involving the clinical use of human subjects, the Human Subjects Committee has freely brought in additional consultants from outside the University--principally members of the Corvallis medical profession.

In this last four-year period during which human subjects research has been reviewed, professional staff time devoted to such activity in the Research Office has amounted to approximately 450 hours, with associated secretarial staff time of about 500 hours. The School of Education estimates that this legislation has required services of faculty members and clerical assistants totaling to an annual outlay of about \$300. Extrapolating this sum across all affected departments on campus

(including the time spent by the Human Subjects Committee) establishes an annual cost to instructional units of approximately \$4000.

Laboratory Animals. The Laboratory Animal Welfare Act was passed in 1966, with amendments in 1970 and 1976. University mechanisms for insuring compliance with this Act include a campus Animal Care Committee and an Office of Laboratory Animal Resources. The Animal Care Committee, consisting of six members, was established in 1966 and has met approximately bi-monthly since that time. The Committee examines all proposals for research on warm-blooded animals, and provides advice concerning the improvement of laboratory animal care facilities on campus. To handle routine matters, the Committee has delegated to the Office of Laboratory Animal Resources the review of proposals concerning the use of warm-blooded animals.

The University's capability to adequately comply with provisions of the Laboratory Animal Welfare Act was considerably enhanced when the Laboratory Animal Resources Center was constructed in 1975, at a cost of \$500,000. This building provides animal quarantine facilities and an area for equipment sanitation and research. The annual operating budget for the facility, including staff salaries, is approximately \$83,000 per year.

Departmental reaction to campus regulations reflecting requirements of the Laboratory Animal Welfare Act has been quite diverse. The following are some representative comments:

1. The Department of Animal Science endorses the concept of laboratory animal welfare requirements, asserting that experimental animals

must be properly cared for consistent with the research needs and objectives of the University. This Department, however, views many of the regulations to be inappropriately facility-oriented rather than animal-performance-oriented. They point out that laboratory animals can be looked after just as well in a low cost structure as in a high cost one, assuming that certain basic principles are followed. The requirement that laboratory rats, which are nocturnal animals, must have higher candle-power lighting than is found in most offices is an illustration of unreasonable facilities standards. The application of such seemingly arbitrary regulations led to the closure of a quonset hut small animal laboratory maintained by the Animal Science Department, having an excellent record of animal health and research accomplishment over many years. The result has been greatly increased costs for the Department's laboratory animal projects.

2. The Fisheries and Wildlife Department points out that present regulations regarding animal care require maintenance of the laboratory animals by a regular cleaning crew rather than care and cleaning by the investigator. Adherence to this requirement has decreased the number of laboratory experiments that the Department can undertake with warm-blooded animals. It has also increased the cost, permitting only a few studies on warm-blooded animals to be undertaken by graduate students. In addition, Federal reporting requirements obligate the Department to maintain records of all vertebrates used. This has increased the cost of experiments, but no increased funds have been forthcoming to cover the additional costs.

3. The Department of Psychology reports a substantial impact from Federal legislation concerning laboratory animal welfare. Prior to passage of the Act, the Department maintained its own breeding colony, which was kept up by Work-Study students under the supervision of a faculty member. This arrangement was abandoned several years ago on grounds (a) that the Department's facility was too small to permit adequate housing (as defined by Federal standards) of research, instructional, and breeding animals, and (b) that the Department's equipment and personnel were not sufficient to maintain its own colony. This change has greatly increased the Department's costs for animal care; the University is currently spending approximately \$7000 to bring this colony up to Federal standards for lighting, ventilation, and temperature control.

The Department also notes that it is now necessary to file research protocols with the Animal Care Committee and to secure advance approval of any research procedures involving painful or otherwise stressful treatment of animals. These procedures require more time and effort than the preparation of materials for the Department's studies of human subjects (which, of course, do not involve stressful treatment), and entail correspondingly increased expenses.

The above comments notwithstanding, it is a fact that prior to enactment of this legislation the care of laboratory animals at OSU varied considerably. Some campus units exhibited great sensitivity to the need for reducing or controlling extraneous variables in experiments involving laboratory animals, and made conscientious efforts to make certain that

animals were kept healthy. Other departments made do with extremely poor and primitive facilities. The extent to which adequate care was provided, it should be noted, also depended on the resources available to the department for the management of their laboratory animals. With the advent of the Animal Welfare Act, the care and control of laboratory animals has become increasingly centralized. The presence of an OSU employed veterinarian and established animal care facilities has undoubtedly increased the total quality of small animal care, and has most likely reduced expenses incurred by most schools and departments in maintaining stock animal colonies and providing necessary space for housing experimental animals. These new procedures are, however, more expensive; it has been speculated that for this reason some instructors may no longer use live animals for laboratory instruction, thereby possibly reducing the effectiveness of their teaching.

Protective Legislation. The Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973 have had a substantial effect on research and instruction involving marine mammals and/or endangered species. Inasmuch as the research carried out in this area at OSU has been restricted to only a few individuals, the University has not implemented routine procedures for the processing or review of research involving such animals; however, the impact on the individuals involved has been considerable.

The Marine Mammals Protection Act of 1972 regulates the taking of marine mammals for research; it requires that researchers receive permission to take a specified number of animals for a specified research purpose. Research proposals at OSU involving marine mammals have been

sent for review to the Marine Mammal Division of the National Marine Fisheries Service and to the Marine Mammal Commission, whether or not marine mammal permits are actually required for the specific research involved. Because much of this research is funded under the Sea-Grant program, the University's Sea-Grant Office has established an ad hoc committee to review such proposals prior to their consideration for funding. The following comments are illustrative of the concerns expressed with regard to this Act:

1. The Fisheries and Wildlife Department reports that the Marine Mammal Act has made it difficult to obtain permits for collecting marine mammals; the Department has abandoned several potential projects relating to the increasing number of protected sea lions because of the inordinate paperwork involved. The acquisition of marine mammal specimens for the Department's teaching collections has ceased. It is unlikely that the Department will be able to replace any specimens in the present collection that may become damaged by classroom use.
2. OSU's Marine Science Center acknowledges that the protectionist intentions of the Act have slowed research, but points out that because all of the Center's research in this area is Federally-funded, the direct costs have been negligible and research programs have paid instead in lost productivity. The Act has good intentions and serves a useful purpose; it is only hoped that its application to scholarly research will be eased as administrators of the Act gain more confidence in the intentions and performance of scientists.

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The procedures for obtaining a permit under the Marine Mammal Protection Act can be quite burdensome. For example, a single project at OSU required nearly 1 1/2 months in initial filing procedures and in subsequent justification reports and hearings for permission to take specimens of marine mammals. The often highly emotional aspects of this type of research have required efforts equivalent to 2-3 months in justifying these programs to nonregulatory civilian groups concerned primarily with preservation of the environment and the organisms that live within it. After permission to collect specimens is obtained, it has occasionally been necessary to accommodate a Federal observer or authorized agent during the conduct of the research activities. This has caused considerable inconvenience at times and, in some instances, has more than doubled the amount of field time required to accomplish the research.

A similar problem with regard to the taking of specimens has been encountered by the Department of Fisheries and Wildlife under the Migratory Bird Act. The Department has found it quite difficult to obtain a collecting permit for migratory birds, the only exception being the collection of game birds in fall plumages. This collecting problem is not the result of new regulations, but rather stricter interpretations on the part of Federal game management agents. The quality of the Department's collection of birds for classroom teaching is rapidly declining, and there appears to be little hope for its replacement. In essence, faunistic survey work no longer exists for many animals of the Pacific Northwest; it appears that a similar situation is developing throughout the rest of the United States.

PHYSICAL FACILITIES

Interactions between Oregon State University and governmental agencies regarding the campus's physical facilities have as their predominant focus two areas of recent Federal legislation: safety (through the Occupational Safety and Health Act of 1970), and access for the handicapped (through the Architectural Barrier Act of 1968 and the Rehabilitation Act of 1973). Appropriate University response to these areas of concern appears to demand extraordinary expenditures of time and money in a context of complex, and often bewildering, interplay between State and Federal agencies.

Occupational Safety

The Occupational Safety and Health Act of 1970 (OSHA) was foreshadowed in Oregon by a directive from former Governor Tom McCall that all State agencies would comply with State fire, safety, and health regulations. This directive of March, 1970 was prompted by an early morning fire at a state hospital in which four children were killed. Appalled at the conditions there, the Governor ordered a survey of other state agencies and installations; this survey revealed an alarming lack of attention to elementary principles of fire safety. In response, the Governor issued an executive order providing that each agency institute a safety program with at least a part-time safety officer in charge, and that state regulatory agencies provide consulting services to insure that code requirements were effectively met.

At the time, Oregon State University was found to be in no better compliance with fire, safety, and health regulations than many other state

agencies. Although state inspectors had, indeed, inspected the University's installations and had cited numerous violations of the life safety code, the University did not have the resources in hand, nor did the Legislature provide emergency funds, to cope effectively with the long list of violations. Therefore, deficiencies were corrected only as unused budget funds became available, at which time the most dangerous existing conditions were rectified.

Congress, in passing the Occupational Safety and Health Act of 1970, encouraged individual states to administer their own versions of a safety and health program. Such programs, in order to be eligible for Federal aid, were required to meet certain stipulations:

1. That State codes meet minimum specifications adopted by OSHA.
2. That political subdivisions be subject to the adopted regulations, even though the Federal law specifically exempted all governmental agencies.
3. That a system of penalties be devised and enforced.

The State of Oregon had maintained a successful industrial safety program for a number of years, and considered itself a leader in occupational safety. Oregon thus opted for "home rule" and was one of the first states to have its proposal accepted by OSHA on a trial basis. Subsequently, the State legislature passed in 1973 the enabling act known as the Oregon Safe Employment Act (OSEA).

Although OSHA became effective in 1971, OSU was not subject to this Act because the University was a political subdivision of the State. Independent institutions were subject to these provisions, however, and the citations and penalties soon assessed against MIT did not go unnoticed

by the University. In particular, it was recognized that when Oregon succeeded in obtaining Federal approval for its safety program, OSU would then be subject to OSHA regulations.

Even though the Governor's orders had previously been implemented, it was actually OSHA that prodded the University into full action. OSU cooperated with the State Fire Marshall, the Accident Prevention Division and the Industrial Hygiene Section of the Workmen's Compensation Board, and the Electrical and Elevator Sections of the Department of Commerce in making a thorough survey of all campus installations. An inventory of safety deficiencies was compiled, with input from the safety committees and inspection teams that had been organized within academic departments pursuant to the Governor's order of 1970. The initial report of safety deficiency correction needs at Oregon State University was published in March, 1974, covering all known violations of the then-existing codes; OSU took the lead in this activity among all schools in the State System of Higher Education. The total estimated cost of correcting safety deficiencies at OSU (in 1973 dollars) was \$3,300,00; this figure has since escalated to approximately \$6,000,000.

No matter how seriously the University acknowledged its responsibility to provide a safe working place for its employees and students, it was clearly impossible to divert such a huge sum out of current budgets. Consequently, a program of deficiency abatement was divided into three phases, and presented to the 1975 Legislature for funding on a three-biennium basis. In 1975 the Legislature made available to OSU \$1,650,000 for the initial phase. In 1977 the appropriation was \$573,500; it is expected that about \$2,800,000 will be forthcoming in 1979.

Under OSEA, the University's experiences with OSHA compliance has involved interactions almost exclusively with State regulatory agencies. Although OSEA specified the Workmen's Compensation Board as the chief administrator of the Act, it has been rulings by the State Fire Marshall's Office that perhaps have had the greatest impact on the University, both financially and emotionally.

Several major building renovations have been carried out to facilitate evacuation in case of a fire. Setting a price tag on such construction is not necessarily a straightforward procedure. For example, in 1973 the University was required to add a second fire escape to a small dormitory tower constructed in 1928. The direct capital cost was something in excess of \$18,000 for that one additional fire escape on a tower less than 100 feet wide. However, including the loss of revenue from the 30 single dormitory rooms that had to be converted to egress routes provides an indirect cost for this construction of some \$45,000 per year. Despite these substantial expenses, campus sentiment is probably reflected in the feelings of one professor who, having experienced a major fire (at another institution) in a building with insufficient fire protection, is immensely appreciative of the conscientious precautions that OSU is now taking.

The University's relationships with the State Fire Marshall, however, have suffered considerably from receiving a number of citations that seem clearly the result of excessive zeal on the part of inspectors from that office. An outstanding example of such difficulties arose during the past year, when a fire inspector announced the necessity for "explosion-proof" refrigerators in laboratories using organic solvents.

In doing so, he classified the laboratory as an "explosive atmosphere"-- a categorization used for large-scale industrial facilities with heavy atmospheric concentrations of volatile substances. Such a classification for OSU's chemistry laboratories immediately subjected these facilities to strict provisions of State code, among which were requirements that all electrical equipment in such labs must be hard-wired. Such an interpretation, incredibly, would require an electrician to hard-wire all electrical gear such as heating mantles, stirring motors, electrical metering devices, and other common tools of laboratory measurement every time an experimental set-up was changed. For all practical purposes, the use of electrical equipment would be banned in undergraduate laboratories. The Fire Marshall was unswayed by University remonstrances, and only after a four-hour meeting in the State Capitol between the five top officers of the University and representatives from the State Fire Marshall, Fire Chief, and Director of the Electrical Division was this inappropriate action finally rectified (although not to the University's complete satisfaction).

Other requirements by the Fire Marshall, although less controversial, have entailed expenses that have cut deeply into activities of student living groups as well as instructional and research units of the University. For example, substantial fire safety costs have resulted from special requirements for automatic sprinkling systems, "one-hour" fire doors, and ionization detectors. Dry chemical fire extinguishers are now being increasingly mandated; the soda-acid type (once required) has been declared illegal, and the old CO₂ extinguisher (long revered) is now in disrepute. Builders of kitchens are now required to install banks

of automatic dry chemical nozzels over the cooking areas. The Art Department has been required to obtain heavy steel cabinets to store acids and flammable materials used in such artistic pursuits as jewelry making, painting, photography, and ceramics. The School of Oceanography has been required to construct an enclosed "blow-out" storage facility for flammable materials, at a cost of \$10,000; the Fire Marshall overruled a request to instead use an available open compound nearby.

An illustration highlighting a serious source of University frustration with fire inspection procedures concerns a citation received by OSU approximately four years ago for not having an approved fire exit from the women's gymnasium. This mandated fire exit was finally installed last year after funds were requested from the Legislature in the amount of \$18,900. By that time, the Deputy Fire Marshall who originally cited the University for this deficiency had been transferred. The new inspector subsequently inquired of the University why the fire exit had been installed; OSU was not required to do so under his interpretation of the fire safety requirements. As long as he was on that subject, however, he admonished the University for particular details of this new fire escape that, although approved by the Office of the Fire Marshall in advance, in his opinion violated the law. It is immensely frustrating for the University to be penalized by virtue of differing interpretations by successive inspecting officials. Even if written approval is obtained in advance, OSU has found this to furnish no avenue of relief from such occurrences.

Safety deficiencies under the purview of divisions within the Workmen's Compensation Board have also had a substantial impact on the

principal programs of the University. For example, the University has been required to inspect all fume hoods in laboratories throughout the campus, and to adjust air flows where required. Because the institution has over 400 fume hoods, this has been an expensive and time-consuming process. During the past summer, Physical Plant personnel spent about \$8000 testing hoods and posting requirements for their safe operation; these requirements were posted on the face of the hoods to remind anyone operating the hoods of the compliance requirements of OSHA. However, OSU is now informed that it may be in violation for the way that these regulations have been posted, even though this was done exactly as the Workmen's Compensation Board instructed. This is just one illustration of a frustrating dilemma the University has frequently encountered: the difference of interpretation between two divisions within the same regulating agency. In the University's chemistry instruction building, the hoods were found to be so far out of compliance, and other safety aspects of the building so expensive to bring up to current standards, that it was decided to construct a new chemistry building and to abandon the present teaching labs. Out of the \$2,800,000 associated with safety deficiency corrections for the next biennium, \$2,180,000 reflects the need for this new chemistry facility.

Some safety regulations have directly affected instructional processes in several disciplines. For example, one experiment formerly required in first-year chemistry courses used a carcinogen that was previously thought to be safe to handle in small quantities, but that is now listed by OSHA as a material whose handling requires the use of a "clean

room." Because complying with the new regulations for the use of this chemical would require physical facilities and personal protection equipment that would strain departmental budgets and that would significantly increase the time devoted to this experiment, it has been dropped from the chemistry curriculum. This change is minor compared to the substantial impact on standard laboratory practices that may be experienced under proposed OSHA regulations that would restrict the handling of benzene, a commonly-used laboratory solvent.

Although various rulings by safety inspectors have appeared to some University members to be misguided expenditures of public funds--such as requirements for new railings in stairwells having existing railings that are quite serviceable--the University's safety deficiency program is succeeding in its overall goal: the emphasis on campus has dramatically shifted from one of sensitizing staff and students about safety precautions to one of taking widespread actions to make things safe. The University has appointed a Director of Safety to oversee the implementation of the campus's safety regulations, and each school has allotted partial FTE to monitor safety conditions in their individual facilities. In addition, the Physical Plant has a full-time safety officer, and Student Housing and the Agricultural Experiment Station each have half-time safety coordinators.

Some potential safety problems are identified through formal review mechanisms; equipment for research experiments is now subject to plans review, a process requiring many hours by the safety personnel involved. As an example of this process, a research project in the School of Engineering investigating the use of fluidized beds for coal combustion had to

be redesigned to meet fire and safety requirements, eroding a \$60,000 grant by \$1600 (in addition to costs in time and frustration for the project leader). Other safety reviews are carried out on a more informal basis, with strong dependency on the sensitivity of individual staff members to safety standards. For example, departments in the physical sciences have experienced on-going costs in bringing various ad hoc laboratory installations by scientists up to State codes. Gradually the point is being made that water and electrical work must be performed according to code, and preferably done by the University's Physical Plant.

A positive aspect of the University's safety program has been the formalized reporting of accidents from each of the campus units. The statistical profiles emerging from these reports have facilitated safety efforts focused on those aspects of institutional operations most often associated with incidents of personal injury. It might be noted, incidentally, that one policy that has helped prod departments into vigorous action in correcting safety deficiencies is the requirement that all fines assessed against departments for safety citations must be paid from the department's own operating budget.

The costs to Oregon State University stemming from its safety deficiency program have been substantial. Although the State Legislature has helped with the large appropriations mentioned previously, in all likelihood these monies represent funds that would otherwise have accrued to capital construction needs for the State's universities. In addition, OSU has expended considerable sums from its operating funds for the administration and implementation of many aspects of the safety deficiency program. The Engineering Department of OSU's Physical Plant now devotes

at least 35% of its time, including the assignment of one full-time architect, solely to the correction of safety deficiencies. This amounts to an estimated expenditure in excess of \$171,000 in the last two and one-half years, for engineering time alone. There is no prospect that University activity in correcting safety deficiencies will substantially taper off in the near future; it is only hoped that the various governmental agencies who mandate many of the newer, stricter safety regulations will be willing to help fund the implementation of these improvements.

Access for the Handicapped

Although personnel of centralized Student Services had been concerned with the needs of handicapped students and faculty members as early as the middle 1960's (and members of the medical staff and faculty had been studying handicapped students' needs even earlier), it was in 1968 that the Student Health Committee formally accepted this problem as one of their responsibilities. During that year, meetings were held with handicapped students and faculty members in an attempt to identify their special needs and how they could best be met. In 1971 the University's Counseling Center was designated by Student Services as the liaison with the State's Department of Vocational Rehabilitation, and was further charged with coordinating action with regard to problems encountered by handicapped students. The following year, a study was made to identify facilities (or, in some cases, lack of facilities) available to handicapped students on campus. Also, two handicapped students were hired to develop a map of the campus and an accompanying booklet that would aid other handicapped students. In 1974 the Counseling Center developed a brochure describing special services for handicapped students. The following two years saw the establishment of a Student Services Committee for the Handicapped, approved by the President as an official

University committee charged with focusing greater attention and concern on the part of the University community to the problems of those individuals suffering physical impairments.

This concern with the problem of handicapped individuals was reflected to an extent in building plans drawn up during that period. For example, the Planning Committee for an addition to the Student Union placed emphasis on the need for making the building completely accessible from the time the planning commenced in 1965, several years in advance of the Architectural Barrier Act of 1968 and the Rehabilitation Act of 1973. Incorporated into two new buildings recently constructed with student funds are four elevators, seven sets of automatic doors, and three entry ramps. Architects estimate that these provisions for handicapped individuals cost approximately \$155,000 out of a direct construction budget of \$2,313,000. In addition, it is expected that such buildings (as well as all future buildings) will impose higher than ordinary operating costs due to maintenance requirements for the automatic doors and elevators.

Despite this decade of attention to the problems of handicapped individuals, the University has only very recently taken positive action to make its existing facilities more accessible. Because this campus is over 100 years old, most of the buildings were constructed without any consideration to problems of the handicapped. The University's Physical Plant has, in the last few years, devoted a substantial amount of time to feasibility studies and cost estimates for ramps, elevators, and other mechanisms to alleviate campus barriers. Spurred by the Rehabilitation Act of 1973, the University will, quite likely, launch a

campaign similar to the Safety Deficiencies Program, with every prospect of its being equally time consuming and costly. As a first step in this direction, the State Legislature has allocated \$100,000 to be divided among all of the institutions in the Oregon State System of Higher Education. An appreciated gesture by the State was the contribution of \$5000 by the Vocational Rehabilitation Division for installation of pneumatic sliding doors in the central Administration Building to permit individuals in wheelchairs easier access to the building. In addition to earmarked State funds, the President recently authorized an expenditure of approximately \$30,000 from University operating funds to be utilized in eliminating barriers to the handicapped. In the past 18 months, the Physical Plant has expended approximately \$42,000 for these kinds of corrections. There is every indication that such a program will ultimately require expenditures in the several millions of dollars.

Although University personnel generally understand how to cope with the problem of architectural barrier removal--it is primarily a matter of finding the time and the money--what are not as clearly understood at this moment are the ultimate ramifications of the Rehabilitation Act in the area of instructional procedures and practices. Removing barriers to learning for the blind and the deaf is a challenge that is now being confronted in only the most preliminary way. In the School of Engineering, for example, professors using visual aids in classes in which a visually impaired student is registered are being asked to produce an audio tape or to otherwise provide the handicapped student the same opportunities as others. The use of small FM senders and receivers for use by acoustically impaired students and their instructors has also

been suggested. There can be no doubt that such efforts will require substantial time commitments from faculty members, diminishing the time available for helping all other students. Given the fixed base of instructional resources with which the University must work, the prospect that providing important services to handicapped individuals must entail reduced services to other students poses a fundamental dilemma. The University has already experienced the curtailment of some instructional procedures because resources were not available to permit compliance with the Occupational Safety and Health Act. There is reason to believe that analogous choices may be mandated under the Rehabilitation Act: these new regulations could require expenditures that would substantially limit educational programs for 15,500 students in order to accommodate the needs of 25 to 50.

Radiation Center

A particularly interesting example of University interactions with governmental agencies in the area of physical facilities is provided by regulations affecting the University's Radiation Center. Activities involving the Center's nuclear reactor and the handling of radioactive materials shipped to or produced in this facility are regulated under such legislation as the Atomic Energy Act of 1954, Energy Reorganization Act of 1974, Occupational Safety and Health Act of 1970, Hazardous Materials Transportation Act of 1975, and Federal Water Pollution Control Act Amendments of 1972. The numerous agencies overseeing aspects of these regulations vary from the Nuclear Regulatory Commission and the Energy Research and Development Administration to the Department of Transportation and the U.S. Postal Service. As a result, the Radiation Center must comply

with a multitude of different, and sometimes conflicting, regulations administered by a variety of different agencies that exhibit no effective coordinating mechanism.

The Radiation Center is a campus-wide research and training facility designed to accommodate programs involving the use of radioisotopes and radiation. Housed in the Center is the University's research nuclear reactor, a TRIGA water-cooled reactor licensed for continuous steady-state operation at 1000 kw, and capable of repeated energy pulses of up to 3000 Mw for 1/100 second. This reactor has been in place at Oregon State University for over ten years. The maximum reactor power level was restricted to 250 kw until 1969, at which time the reactor was licensed to operate at a maximum reactor power level of 1000 kw (but until 1971 operated at this higher level for only short periods of time due to lack of sufficient cooling capability). In 1971, the cooling capacity was upgraded to allow continuous operation at the reactor's maximum level of 1000 kw; this may be compared to the power levels of commercial electrical power-generating reactors, which operate continuously at levels in excess of 3,000,000 kw. In 1976, the reactor was shut down for a month to allow a new core to be installed, providing enough new fuel for operation for the next 10-15 years.

The extent of State and Federal regulation of the Radiation Center's activities in the last five years has increased enormously. Center personnel have been inundated with more regulations with which to comply, more records to keep, more training programs to implement, more inspections to prepare for, more license fees to pay, and many more reports to write. For example, whereas five years ago the Radiation Center was inspected by

the Nuclear Regulatory Commission (NRC) about once every one to two years, now there are to be four inspections a year, each covering a different aspect of Center operations. Paperwork requirements have at least doubled, and more likely quadrupled; many reports that the Center was formerly required to maintain informally and keep available for NRC inspection must now be formally written up and sent to Washington, D.C. Other reports that the Center must submit cover entirely new areas of reporting. For example, the Center is now required to submit a report of "abnormal occurrences," with such abnormal occurrences so generally defined that practically anything happening even remotely abnormal (even as insignificant as a burnt-out light bulb) must be reported. The resulting steady stream of abnormal occurrence reports throughout the year is but one additional paperwork burden now imposed on the Center's personnel. It is perhaps ironic that these significant paperwork burdens designed to help upgrade and maintain the safety of nuclear operations, when imposed on a small, fixed-staff operation characteristic of most University research facilities, may in fact be counterproductive. Some of the Radiation Center's most knowledgeable and experienced personnel are now finding themselves bogged down behind their desks instead of being out in the facility where they are in a better position to apply their expertise. One must wonder if the pursuit of greater operational safety is well served by requiring the Center's most talented personnel--staff members whose applied knowledge enables them to recognize problems in the operating facility and take remedial action on their own--to now devote a significant portion of their time to administrative paperwork.

Many of the regulatory burdens experienced by the University's Radiation Center derive from a common cause: governmental agencies have demanded that small university research reactor centers adhere to the identical regulations and standards developed for large, commercial electrical power-generating reactor facilities. One example of this phenomenon is the Radiation Center's physical security program. The combination of various physical barriers and electronic alarms mandated under government physical security guidelines have, no doubt, made the Radiation Center a bit more secure. But examined in the context of wise expenditure of public funds, it is doubtful that these extra security measures have resulted in any significantly increased protection to the health and safety of the public. In fact, the opposite might to some extent be the case: because the Radiation Center has not acquired any additional personnel for this program, all new physical security duties have been added to the existing workloads of the Center's staff. In effect, these new requirements have had an adverse impact on the Center's daily operating program.

A similar example of potentially counterproductive regulation of the Radiation Center is the recently mandated development of an emergency response program. An emergency response plan, with official NRC approval, has always existed for this facility. However, with the advent of large operational commercial power reactors, Oregon (and many other states) became concerned at the lack of comprehensive, detailed, and well-coordinated plans for effective response to nuclear emergencies outside the perimeter of the reactor site. Accordingly, regulations were drafted

requiring all nuclear reactor facilities to develop State-approved emergency response plans, and the NRC followed suit by issuing a new regulatory guide. Under this mandate by State and Federal agencies, the Radiation Center revised its original emergency response plan, which was about three pages long and memorized by all staff members. The new plan is about 12 pages long, containing detailed requirements regarding notifications, accident assessments, and other standard procedures; the plan is cumbersome, probably not as well-understood as the original plan, and in some aspects almost unworkable for the limited staff of the Radiation Center. A recent conversation underscores the questionable benefits of developing this new plan: at the Radiation Center's last NRC inspection, personnel were asked what kind of accident might occur that would require the emergency response plan to be implemented. None of the Center's senior staff members could suggest a realistic accident leading to such an occurrence.

To date, regulatory agencies have resisted distinguishing between commercial power reactors and small research reactors in the formulation and implementation of regulations. Operating standards have been applied consistently across the board, despite clear evidence that nuclear facilities in educational institutions have no capability to implement many of these standards in a fully effective manner, and are unlikely to gain such. Some regulatory programs are inappropriate to university reactor centers not because their implementation requires added personnel, but because they fail to recognize other special characteristics of such facilities. For example, regulatory commissions are now proposing fee schedules for their services. Although commercial power reactor

operations can absorb such costs (and pass them on to consumers), university research facilities cannot possibly accommodate them. For example, it is proposed that all personnel having access to special nuclear material obtain security clearances; such a requirement for all Radiation Center and Campus Security personnel might cost as much as \$20,000. Moreover, if everyone were required to wear a badge, the Radiation Center would undoubtedly need to hire some sort of guard to officially check the badges—otherwise what would be the point of having badges? Another illustration of inappropriate requirements applied to university reactor operations is given by recent Federally mandated training programs. One such program, for example, specifies reactor operator requalification procedures. There is no question that formal requalification procedures at large commercial power plants appear worthwhile; many more people are involved in reactor operations, and few possess the educational background characteristic of personnel operating research reactors. At facilities such as OSU's Radiation Center, by contrast, the staff is quite limited in size and well versed in the comparatively undemanding operating requirements of the research reactor. However, the requalification programs mandated for University reactors are virtually identical to those required of power plant operations. As a result, valuable reactor operation time is lost each year as the seven operators manning OSU's nuclear reactor take turns giving lectures and administering examinations to each other to comply with this program.

As in other parts of this governmental impact study, it must be strongly acknowledged that the compliance burdens detailed above are not

without compensating benefits. Indeed, Oregon State University acquired its research reactor with the help of a large grant from the National Science Foundation and a fuel grant from the Atomic Energy Commission. The State of Oregon provided substantial funds to establish the reactor facility. Each year the Federal government has waived use charges on the reactor's fuel, and a substantial grant from the Energy Research and Development Administration just last year allowed the University to obtain an entire new reactor core. While acknowledging that the University would not possess its nuclear reactor had it not been for generous support from the Federal government and the State of Oregon, it must be asked whether the imposition of many of these new regulations and standards is indeed consistent with the effective achievement of the aims this facility was established to serve.

SOCIAL LEGISLATION

Of all areas of recent Federal legislation, the body of laws and regulations having the most dramatic impact at all levels of University operations is that dealing with nondiscrimination in employment. The principal administrative acts addressing this segment of institutional affairs are as follows:

1. Title VII of the Civil Rights Act of 1964, as amended;
2. Executive Order 11246, as amended by 11375;
3. Title IX of the Education Amendments of 1972 (Higher Education Act);
4. Fair Labor Standards Act of 1938, as amended in 1966;
5. Equal Pay Act of 1963, as amended by the Education Amendments of 1972;
6. Equal employment opportunity statutes of the State of Oregon.

While even cursory knowledge of governmental regulations affecting student services, sponsored research, and campus facilities is limited to relatively few staff members of the University, the requirements and impacts of the Federal legislation listed above are familiar to virtually all faculty and staff. In fact, a majority of OSU's faculty would quite likely identify affirmative action obligations as the sole substantial area of governmental requirements affecting the University. In truth, however, not only is the University's expenditure of resources under its Affirmative Action program moderate in comparison to many areas of regulation discussed earlier, but this program also represents one in which procedures are being effectively institutionalized and successfully implemented.

A detailed analysis of governmental impacts on this segment of University operations is complicated by the overlapping jurisdictions and issues encompassed in the Title VII, Title IX, and Executive Order 11246 and 11375 legislation. (Many of the background documents submitted for this Impact Study mirrored this confusion, with authors commonly failing to distinguish correctly between the specific requirements of these various Acts.) The University's response to this body of regulations has consisted of three principal actions: procedures have been developed and implemented to facilitate compliance with specific requirements of the legislation, an Office of Affirmative Action has been established to coordinate University response to compliance obligations and to receive employee grievances, and records of administrative actions have been greatly expanded and formalized to fully document the University's adherence to equitable personnel practices.

Affirmative Action

The catalyst for positive and serious University commitment to non-discriminatory personnel procedures was Executive Order 11246, which stated that employees and institutions having contracts with the Federal government in excess of \$10,000 and their subcontractors must have a written Affirmative Action plan with goals and timetables. This Order became effective in 1968, and in 1969 the OSU Faculty Senate adopted resolutions encouraging the University to take vigorous steps to increase the numbers of minority-group faculty and graduate students. Unfortunately, the coordinated implementation of these resolutions was not pursued until several years later and, even then, primarily in response to renewed external pressure. The needed impetus derived from an inspection in 1972 by officials of the

Region X Office of HEW. These Federal officials conducted an intensive review--meeting with University faculty, staff, and administrators, examining salary records, and analyzing promotion and tenure processes. They found the University to be in noncompliance with the Executive Order; OSU was found to discriminate against women in salary and to have few minority members among its faculty. The University's Affirmative Action Office was established in response to this audit, beginning in 1972 as a single person, single desk operation within the Office of Budgets and Personnel Services. The first task addressed was the development of official University documentary and procedural requirements for the hiring of new faculty. The following year, the Office of Affirmative Action was further institutionalized through the naming of a full-time Director reporting directly to the University's President. At the same time, the newly-developed documentary and procedural requirements were fully implemented across all University units--a change in prevailing procedures so abrupt and so demanding that a substantial disarray in University hiring procedures prevailed for the following two years.

The near-chaos characterizing the first two years of vigorous affirmative action efforts resulted from a combination of circumstances: many departments initially resisted this central administrative intrusion into their historically private domain, and were met with equal obstinacy by the Affirmative Action Director with full support from the President. Other departments more anxious to cooperate with the social imperatives underlying the Affirmative Action program were nonetheless troubled by various aspects of the required procedures. The Affirmative Action Office, however, was not at that time able to work effectively with the schools to

refine these procedures, ultimately alienating many departments predisposed to embrace this program.

In retrospect, the years 1973-75 served as a period of major transition: the issue of Affirmative Action was clearly crystallized, and faculty and staff were aggressively sensitized to the University's commitment to equal opportunity and affirmative action in employment. A new Director of Affirmative Action was appointed in 1976, with the brief interim between Directors devoted to a concentrated effort revising and refining the Affirmative Action documentary and procedural requirements. The new Director brought an appropriate change of managerial style to the Office of Affirmative Action: whereas the former Director had (largely through necessity) adopted a policy of confrontation and strict interpretation of requirements as a means of emphasizing the University's commitment to its new procedures, the present Director plays more of a mediatory role to facilitate compliance efforts by a faculty now sensitive to the institution's demand for full affirmative action compliance.

Instruction. The affirmative action recruitment procedure presently used at Oregon State University is quite likely among the best in the nation in its adherence to the spirit of Executive Order 11246. These procedures require the express approval of the University's Affirmative Action Office at two key stages of the recruitment process. When a department wishes to hire a new faculty member, they must first submit for the Affirmative Action Office's approval a recruitment proposal (called a Notice of Academic Position Opening). The principal elements of this proposal are a complete job description for the proposed position, a detailed list of screening criteria (ranked in priority order) that will be used to

evaluate the persons applying for the position, and a plan for conducting the broadest recruitment effort possible under the circumstances. These materials must be approved by the Affirmative Action Office before an announcement of the position may be made privately or in any public media. This procedure allows the Office to verify that the position description complies with all nondiscrimination statutes, that the screening criteria are appropriate to the position being advertised and do not bias the selection process, and that notice of the position will be sufficiently well distributed to assure equal opportunity of application. After approval has been granted, the department is expected to follow scrupulously its advertisement plan and to evaluate applicants solely in terms of the stated criteria. After the preferred candidate has been selected, approval of the Affirmative Action Office must again be obtained before the candidate may be hired. The Office at this time carefully checks the candidate's qualifications against the previously approved criteria. If the criteria do not appear to have been followed, permission to hire the candidate will be withheld; this has happened in a few instances in the recent past.

Departmental discontent with these procedures has two principal focuses. First, the time and effort necessary to develop a complete and precise job description, along with a rational and comprehensive list of criteria for evaluating applicants, constitutes a substantial administrative burden in units that do even a moderate amount of hiring each year. Second, the requirement for strict adherence to relatively long application deadlines in search procedures can occasionally work to a department's detriment. Below are some representative comments from instructional departments illustrating these concerns:

1. The School of Business estimates that it costs approximately \$3000 per year to comply with affirmative action regulations. This sum includes only the cost of time expended by the Dean, Department Heads, and their staff in developing and processing the documents necessary for compliance. In particular, this sum includes no estimate of costs associated with inefficiencies and delays in the hiring processes that have resulted from affirmative action compliance. For example, because applications are required to remain open until the closing deadline, the School on several occasions may have lost the best candidates simply because an offer could not be made until the end of the announcement period.
2. The School of Engineering recalls that substantial efforts were expended understanding, implementing, and operating the initial affirmative action procedures. This time commitment, estimated to be up to 20% of the Dean's time and as much as 10% of the time of Department Heads for two years, derived largely from an inability to work effectively with the Affirmative Action Office. For example, the School of Engineering documented the limited number of women and minorities earning Ph.D.'s, but was still forced to search widely despite an extremely small probability of any success. The mandated nationwide searches for graduate students at that time had virtually no return, as was expected, at substantial cost to the School. Now that the School's estimates of applicant pools are accepted by the Affirmative Action Office, routine affirmative action procedures have been incorporated as part of the normal recruiting effort. The Engineering School reports that it now has a wider selection of applicants for each opening, resulting in significantly less dependence

on word-of-mouth recruiting techniques. In particular, there is no doubt that affirmative action has helped the recruitment of women in that School.

3. The School of Home Economics reports that the length of time required for recruiting faculty has doubled, and states that they too have lost highly qualified applicants because the School was unable to act before the deadline for accepting applications. The School has found that although affirmative action procedures result in many more applicants for positions, the greatest part of this increase consists of unqualified applicants--serving to needlessly increase the effort and costs of the recruiting process.
4. The College of Liberal Arts, in a philosophical vein appropriate to its role, notes the perceived conflict between a genuine commitment to attracting minority faculty and a likewise genuine desire to hire the most capable faculty available. The College reports that although results in terms of minorities and women hired may not be impressive, the recruiting process is better conceived, more systematically operated, and less prone to the private placement procedures that have so long permeated the marketplace for academics. It may be that a persistent buyer's market for faculty has done more for the size and quality of applicant pools than have affirmative action requirements, but these procedures have at least allowed the University to take full and fair advantage of the market situation.

As the University now enters a period of steady-state operation, one facet of affirmative action recruitment policies may have increasingly burdensome cost implications. If as expected, a larger proportion of the

University's faculty are hired on short-term appointments, this will result in a greater "churning" of these positions; that is, over a given time period more individuals will fill a position than have previously. If the Affirmative Action Office continues to maintain the same recruitment procedures for short-term appointments as for longer-term positions, the costs of personnel turnover will substantially increase.

Using the Business School's estimate of \$3000 per year in imputed costs of complying with affirmative action regulations, this amount extrapolated over the other schools and instructional support units of the University implies an annual cost to the institution of up to \$50,000--just for instruction. As a specific example of the added direct costs associated with affirmative action procedures, the following is an analysis of costs incurred in recruiting a professional librarian with a scientific/technical background. These figures represent recruiting costs for the same position, first in 1969 and then in 1977:

Recruiting Costs for a Scientific/Technical Librarian

<u>Item</u>	<u>Sci/Tech. Librarian 1969</u>	<u>Sci/Tech. Librarian 1977</u>
Labor costs (Director's and staff time)	\$28.08	\$330.66
Postage (Announcements and applications)	.56	22.49
Supplies (Stationery and reproduction)	.25	49.00
Advertisement (Newspaper ads)	-	55.90
Telephone (Long distance calls)	<u>1.65</u>	<u>43.93</u>
TOTAL	\$30.54	\$501.98
Total number of applicants	5	19

Research. Research units at Oregon State University have experienced similar problems with affirmative action procedures, but the matter of timing emerges as even a more sensitive issue. Research activities are, by their very nature, organized into individual projects each with different staffing needs. The varying time spans and personnel requirements of such projects impose substantially greater burdens in continual recruitment activities than are experienced by instructional units. The following are representative comments from some of the University's research units:

1. The Office of Research reports that although affirmative action procedures have often resulted in hiring better qualified people, there is little question that these procedures have hindered the ability to hire people quickly. This slowdown can be immensely frustrating to principal investigators at the initiation of research projects. It is impossible to hire a technician or a scientist before funds are available; therefore, little recruitment can be undertaken before a grant is made. Once the grant is approved, however, the principal investigator is under the pressure of time to produce results during the grant period. Procedural delays in hiring the necessary personnel result in corresponding delays in initiating the research, understandably increasing the frustration of the principal investigator.
2. The Department of Food Science expresses concern about the difficulty of hiring personnel to work on relatively short-term research projects. The Department is frequently asked to undertake research projects, usually of an applied nature, with a

potential duration of three to six months. The type of skills needed in the work are usually well defined, and the Department is under pressure to hire directly in order to get the project started. If an affirmative action search is undertaken, valuable time is lost in getting the project underway.

3. The Department of Animal Science reports that affirmative action requirements for national advertising put the recruitment process at the mercy of publication deadlines. Sometimes a short delay in getting preliminary paperwork done can cause a missed deadline, delaying hiring by two to three months. Also, the lack of flexibility in these procedures has occasionally been a problem. A position advertised at the Assistant Professor level cannot be filled at the Associate rank without virtually starting over; such a case in this Department caused a delay of nearly six months in hiring.

4. The Department of Agricultural and Resource Economics comments that while rapidly shifting government priorities precipitate the need for very flexible research and teaching programs, Federal mandates ironically generate impediments to such flexibility in research and teaching. In particular, because affirmative action procedures tend to be both costly and time consuming, the Department is increasingly cautious about accepting research projects that will require hiring on a relatively short-term basis (less than 18 months). The reason for this is that many of these projects specify relatively short periods before their starting dates, whereas affirmative action procedures rarely allow staff to be hired in less than three

months. The Department's participation in short-term projects, therefore, becomes impractical. These circumstances have as yet unknown consequences for the University; however, it is increasingly clear that a number of consulting agencies are finding it easier to respond than universities. Such companies draw heavily on information available "on the shelves" of universities. Although the quality and objectivity of their reports vary, they do meet the deadlines. The extent to which universities will be able to replenish the stock of basic knowledge for others to draw upon under such circumstances remains to be seen.

5. Finally, the Marine Science Center reports that the concept of formal position descriptions, screening criteria, and selection committees for academic positions has had a positive effect. Such procedures have resulted, on at least two specific occasions, in selection of best qualified personnel over others with whom a "buddy" situation existed. The process quite likely taught the selection committee some things about itself that would not have been recognized otherwise. However, this process is tedious, time consuming, and at times bewildering--especially when one applicant for a minor position must be selected from a field of 50 qualified people. The incremental direct costs for such hiring procedures have been primarily for advertising and mailing (which are not charged as direct or indirect costs to grants); they amount to about \$4000 per year. Clerical labor involved in the process is either funded routinely for a variety of personnel tasks, or is supported by grants. Involved faculty are funded primarily by grants; their personal effort detracts from research

productivity, but does not add costs. Thus, although the imputed costs of faculty time devoted to personnel matters have been significant, they have been reimbursed indirectly through Federal grant funding. The intangible emotional stress on faculty operating under new (and initially ill-defined) procedural rules has had an adverse impact on research productivity that is real, but difficult to quantify. Fortunately, the worst now seems to be past.

Office of Affirmative Action. The University's Affirmative Action Office was established to coordinate the University's response to HEW guidelines and to develop processes for assessing, monitoring, and implementing the Affirmative Action plan at OSU. The Office staff is presently comprised of a Director reporting directly to the President of the University, a Research Analyst, Administrative Assistant, and a Secretary. The budget for the Affirmative Action Office in 1976-77 was \$71,200. The Office is responsible for analyzing and monitoring University personnel policies and procedures to ensure adherence to Federal guidelines, executive orders, and other civil rights and equal opportunity laws and regulations. For example, the Office monitors on a daily basis all departmental recruitment and hiring procedures, including those for graduate teaching and research assistants as well as for academic faculty. An average of 35 to 50 packets a week are screened through the Affirmative Action Office with regard to such matters.

The Affirmative Action Office also receives complaints from students, classified staff, and academic personnel regarding alleged discrimination based on race, age, sex, national origin, marital status, or mental or physical handicaps. Such complaints are investigated informally by the

Office, and conciliatory attempts are made. If a conciliation cannot be reached, the complaints are referred to the appropriate OSU committee for formal hearings. Examples of grievances recently brought to the attention of the Affirmative Action Office include a complaint by several women students that a faculty member frequently told sexist jokes in class and appeared to be making improper advances to female students, an allegation by classified staff that women were not being promoted (while men with poorer credentials were), and the charge by a female faculty member that she was discharged by her department head because he disagreed with her personal lifestyle.

Oregon State University developed the first Affirmative Action plan approved by HEW in Region X; only one other university has succeeded in gaining approval up to this time. The University presently enjoys an excellent working relationship with staff members of the Region X Office, a situation that nationally appears to be extremely atypical. This does not mean, however, that the Regional Office does not impose substantial burdens upon the University. Whenever the University is under consideration for a large Federal contract, the Region X Office performs an on-site review, requiring the University to furnish updated analyses of faculty distributions, salary utilization studies, and other statistical data. Historically, OSU has been granted very little time in which to compile this information, and the data collection methodologies and analyses mandated by Region X are continually changing. The cost of such data collection is considerable; it is estimated that the latest computer run required by Region X will cost \$1500 to develop. Four such programs will probably be required, with the cost being completely borne by the Affirmative Action Office.

The role of the Affirmative Action Office at Oregon State University is difficult and, perhaps by necessity, not always clearly defined. The Office is not truly institutional in the full sense of the word, because otherwise it could not effectively question or challenge institutional processes. But neither can the Office function as an enforcer, for its enforcement powers are limited to those of persuasion--backed by the full power of the President when he so wishes. Although the role of the Office in affirmative action procedures is now well established and, for the most part, routinely accepted, further responsibilities of this Office in areas of Title IX and Chapter 504 (Regulations for the Handicapped) compliance are just now beginning to be formulated.

Nondiscrimination

Oregon State University has experienced a number of problems of adjustment in attempting to comply with some aspects of nondiscrimination legislation such as Title VII of the Civil Rights Act and the Fair Labor Standards Act. For example, the University's Physical Plant states that no consideration has been given to race or ethnic group in hiring employees, but religion has sometimes been a complicating factor. In particular, an employee who is a Seventh-Day Adventist and whose religion prohibits him from working after sundown Friday evening until sundown Saturday evening presents scheduling difficulties if assigned to such duties as custodial or grounds crews (not to mention such continual activities as operation of the boiler plant or Campus Security). Because it is important that the Physical Plant carry on its functions during the times that an Adventist will not work, it is necessary for the Physical Plant to determine in some way whether or not such an employee will be available during the times that

his services are needed. Prior to enforcement of the Title VII legislation, employees were required to meet the normal working hours of the unit in which they sought employment. Recent interpretations of this legislation, however, now require that a person be hired regardless of his religious convictions, and that appropriate reassignments of duties and working hours be carried out upon disclosure by the new employee of work restrictions stemming from religious convictions.

Another, and more far-reaching, example of unanticipated University conflict with nondiscrimination legislation pertains to the institution's custodial workers. In 1974 a law suit (Brennan vs. Oregon) was filed at the University of Oregon by the U.S. Secretary of Labor naming as defendants the State of Oregon and specified State agencies that purportedly paid different or higher wages to men than to women for purportedly the same work. The dispute centered on the dual State classifications of Domestic Worker (filled primarily by women) and the higher-paying category of Custodial Worker (filled predominantly by men). During this same period, there were other cases filed in different parts of the country similarly alleging that men were paid more than women for substantially the same work. The State of Oregon, in response to this case, entered into a conciliation agreement with the U.S. Department of Labor--agreeing to combine the two classifications into a single classification of Custodial Worker, and providing for two years' back pay of 80% of the wage differential to the affected domestic workers. One interesting aspect of this case is its vivid demonstration of the many overlapping jurisdictions in the area of civil rights and nondiscrimination; governmental agencies having monitoring functions under these regulations include:

1. U.S. Department of Health, Education and Welfare;
2. Office of Federal Contract Compliance Programs;
3. U.S. Department of Labor;
4. Equal Employment Opportunity Commission;
5. U.S. Department of Agriculture;
6. Oregon State Bureau of Labor (Civil Rights Division).

In the case of the domestic workers, the initial complaint was filed with the Department of Health, Education and Welfare. Sometime later the same complaint was filed with the U.S. Department of Labor, followed by similar complaints filed with the Equal Employment Opportunity Commission.

Finally, a group of employees, many of whom had already filed one or more complaints with various Federal agencies, filed sex discrimination complaints with the Civil Rights Division of the Oregon State Bureau of Labor.

Because of the overlapping jurisdictions available to the complainants, the University (and the State Attorney General's Office, representing the University) finds itself attempting to resolve these complaints in a manner acceptable to four separate governmental agencies--each with different statutory provisions to guide it, and substantially different investigative procedures to follow. Of particular significance in this case is the fact that back pay liability under Federal laws is limited to no more than two years from the date a complaint is filed, if a violation is found to be non-willful. On the other hand, State statutes do not include the two year back pay limitation; in the domestic worker case, therefore, the Bureau of Labor feels obligated to pursue a back pay remedy retroactive to 1969, which was the year Oregon's civil rights statutes were passed.

These jurisdictional problems have delayed the domestic workers' case from reaching a final determination. The State has placed in escrow approximately \$450,000 in accordance with the consent decree providing for the award of two years' back pay. Depending upon the agreement finally reached, the back pay settlement in this case could range anywhere from \$400,000 to \$600,000. Administrative costs associated with this case have not been calculated, but considering the time period involved and the number of personnel who have devoted extensive time and effort to these proceedings, the costs to the University and the State of Oregon have undoubtedly been substantial.

It is perhaps ironic that costs to the University and State from monetary settlement provisions in this case may eventually be dwarfed by costs arising from indirect effects of the conditions of settlement. Now that it is illegal to distinguish between men and women in the Custodial Worker classification, women employees are expected to work under identical conditions and to lift and carry loads equal to those assigned to men. As of this year, the Physical Plant has experienced an increase in accident rates among women 500% that of men employees doing the same work. The ultimate cost to the State seems likely to be substantial primarily because most of these accidents are back injuries. The Physical Plant is daily receiving grievances filed through the employees' union that workloads are being assigned that are greater than an employee can handle; in almost every case the grievance has been filed by a woman. However, current interpretations of Title IX legislation have resulted in the State removing from its books the specification of such female amenities as rest periods, places to take rests, and restrictions on lifting certain weights. An all-too-common situation is exemplified by a claim recently filed by a

female employee to a private insurance carrier for a work-related injury. This woman claims that she is being required to lift heavy loads that should never be lifted by a woman, and that eventually she fears she will be facing surgery because of it. The woman, however, refuses to file an Industrial Accident claim with the State, fearing that the Workmen's Compensation Board will declare her ineligible or physically incapable of performing her job. The dilemma is obvious--the University, through its compliance with nondiscrimination legislation, is forcing this woman to do work that she is physically incapable of performing.

A similar kind of dilemma is posed by recent job applications filed by women students for positions on the Student Dormitory Patrols organized as part of Campus Security. At the moment only two women have been assigned these duties, and both are performing excellently. Although Campus Security is continuously advocating and advertising that women should not walk alone on the campus after dark, these female employees are not only walking alone, but are walking in the worst possible places for potential rape attempts. This fact has been repeatedly pointed out, but the women are adamant in maintaining their right to this type of employment. It is unfortunate that their rights may prove to be a tragedy someday.

State Merit System. Most equal employment opportunity and affirmative action legislation applies to the State of Oregon, as an employer, as well as to the University. Because classified employment at the University is conducted through State merit system rules and procedures, the influence of civil rights laws and regulations on these procedures ultimately affects personnel administration at the University.

Extensive changes have recently taken place in merit system recruitment and selection procedures. Examination concepts have changed;

"unassembled" examinations involving the evaluation of experience and training and the assessment of pertinent knowledges, skills, and abilities are being increasingly used in place of written examinations. Such a shift in selection procedures necessitated extensive job analyses to establish recruiting criteria listing specific knowledges, skills, and abilities needed for each job. Equal employment opportunity mandates have led the State Personnel Division to review basic minimum qualifications established for each job classification, and to subsequently remove many specific educational and experience requirements. In instances where college degrees or high school diplomas were formerly required, work experience related to the job classification is now frequently accepted as being equivalent to formal education. Such changes are designed to remove unreasonable qualification standards and to substitute job-related knowledges, skills, and abilities as a means of removing barriers to those who, because of past discrimination or cultural deprivation, have formerly been unable to obtain merit system work for which they were actually qualified. Although this objective of barrier removal has largely been met, it appears to the University that the Personnel Division has overreacted in its efforts to eliminate unnecessary qualifications; complaints are increasingly received that applicants certified by the Personnel Division as qualified for a given position are frequently only marginally qualified, or sometimes not qualified at all. For example, one supervisor has complained that individuals who have operated programmable desktop calculators are being certified to him as fully qualified computer operators. As another example, a University unit recently needed a personnel professional in a job classification that requires a Bachelors degree, preferably in Business Administration, and a year of technical personnel experience. The list of

eligible candidates certified by the Personnel Division was headed by an applicant who had no college training and whose experience consisted of four years as a stenographer and one year as computer input supervisor at the Personnel Division. Under the new minimum qualifications philosophy, this applicant's experience as a stenographer was considered equivalent to a degree in Business Administration, and the year of experience in supervising computer input was accepted as technical personnel experience.

Despite such anomalies, changes in merit system rules and procedures have resulted in benefits to both employees and applicants. Unreasonable minimum qualifications have been modified, and women and minority group members are finding their way into higher-paid classifications formerly held almost entirely by white males. Progress has been made toward elimination of sex bias in position classification and salary administration, although jobs traditionally held by women (clerical-secretarial) still pay less than jobs traditionally held by men (labor, equipment operation, etc.), although these latter jobs often require much less education and experience.

To administer the increasing recruitment and employment workloads, the number of employees engaged in classified work at the University has increased from three in 1969 (one professional, two clerical) to eight at present (four professional, four clerical). It is estimated that at least one professional and one clerical position derives directly from workload increases associated with affirmative action and equal employment opportunity requirements. This corresponds to a direct salary cost of \$25,000 per year, not including costs of support services for these employees, office space, supplies, payroll and administrative overhead. Outreach efforts, career counseling, establishment and maintenance of skills banks,

training of supervisors and administrators, and closer monitoring and control of classified recruitment and selection practices will entail substantial increases in expenditures for University personnel services.

Unemployment Compensation

A governmental impact of considerable concern to Oregon State University results from recent interpretations of the Federal Unemployment Tax Act and related legislation. Unemployment compensation costs have escalated dramatically, due in part to raises in benefits, but primarily owing to the liberalization of eligibility standards. Under Federal law, an employee on a nine-month appointment is considered a seasonal employee and hence entitled to unemployment compensation during periods when the University is not in operation, such as at Christmas and spring break and during the entire summer. Auxiliary operations under auspices of Student Services, such as the health service, the student union, and the residence halls, employ a large number of nine-month classified staff whose "seasonal" designation has resulted in extensive unemployment compensation claims for OSU. The magnitude of such claims on the University for calendar year 1975 is shown in the following table:

Oregon State University Unemployment Claims
Calendar Year 1975

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>	<u>Total</u>
Student housing	\$ 6,693	\$ 7,799	\$ 41,476	\$ 3,286	\$ 59,254
Student union	2,106	2,107	15,069	1,424	19,706
Student health service	<u>2,041</u>	<u>1,579</u>	<u>21,169</u>	<u>935</u>	<u>25,724</u>
SUBTOTAL	10,840	11,485	77,714	5,645	104,684
Total OSU claims	54,825	59,587	133,039	56,593	304,044
Student Services claims as percent of OSU total	19.7%	19.3%	58.4%	10.0%	34.4%

University administrators have been largely unsuccessful in searching for ways to reduce unemployment compensation costs. Some of the recent rulings that have frustrated every effort to bring these costs under control are as follows:

- a. Employees on seasonal leave without pay during term breaks are not required to look for work, even though the rules state that eligibility for compensation requires recipients to be "able to work, willing to work, and actively seeking work."
- b. Employees on seasonal leave need not respond to invitations to be interviewed for year-round work. They can refuse to appear for interviews, and yet continue to collect unemployment compensation benefits.
- c. Employees who have seasonal positions need not accept year-round positions when offered. For example, a clerical assistant on nine-month appointment can decline an offered transfer to a year-round clerical assistant position effective May 1, without affecting eligibility for unemployment compensation after the seasonal break begins June 15.
- d. Employees may receive unemployment compensation during periods when they are on paid vacation. They may also continue to receive unemployment benefits when they are on extended vacation trips.

Incredibly, University officials estimate that as much as 75% of the 1975 total unemployment compensation bill of \$304,044 was paid to employees and ex-employees who would not have been considered eligible for benefits only a few years previously.

In 1976, centralized Student Services thought they had found a promising strategy for reducing unemployment compensation costs. Changes in scheduling were made at the Student Health Center and the student union during summer term and holiday breaks enabling more people to be employed by means of splitting appointments. Employees were given the option of accepting or declining such employment, and the greater number of people thereby employed greatly reduced unemployment compensation eligibility. For example, during the 1976 summer term the Student Health Center divided an RN position so that two nurses worked 20 hours each per week. However, one nurse filed a grievance and the Employment Relations Board ruled that the University may not divide a position allowing two employees to share 40 hours of available work. The Board directed the University to pay the nurse for the 20 hours per week she did not work, at a total cost of \$1200. The precedent set by this decision will make it impossible for Student Services to use this management tool in the future; this development is expected to increase the annual costs to the State System of Higher Education by as much as \$20,000.

Legal Burdens

As mentioned previously, a person having a civil rights grievance against the University possesses multiple forums in which to press such a complaint. In addition to Federal remedies under Title VII of the 1964 Civil Rights Act, Executive Order 11246, and the Fair Labor Standards Act of 1963, most states have a local authority to act as a preliminary investigative unit for civil rights grievances. The agency in Oregon overseeing Title VII compliance is the Bureau of Labor, and civil rights complaints against the University can be (and generally are) filed simultaneously with

the Seattle Office of the Equal Employment Opportunity Commission (EEOC) and the Oregon Bureau of Labor. The usual procedure in such cases is for the Bureau of Labor to perform an initial investigation and, depending on their findings, to try and enter into a conciliation agreement with the offending employer. In such investigations, the Bureau of Labor has established a record of almost always finding for the complainant. This circumstance may arise in part because the staffs of many of these enforcement agencies are comprised largely of women and minorities who may have a predisposition to believe that something is wrong, or may also reflect the fact that such agencies generally have a high turnover rate that adversely affects their investigative procedures. Another explanatory premise especially applicable to higher education is that universities in the past have maintained neither carefully designed nor strictly enforced personnel procedures, allowing many decisions in this area to be made on arbitrary or subjective grounds. Under such circumstances, enforcement agencies might very well conclude that the institution has been discriminatory.

Upon a determination of noncompliance and upon a failure of conciliation at the State level, the entire case is then transferred to the EEOC. Unfortunately, at least in this Region, when the EEOC receives such a case their policy is to restart the entire investigation from scratch. Because these agencies do not accept each other's findings, the University must again supply to Federal authorities vast amounts of information (most appropriately measured in pounds or in volumes) that have already been made available to the State. Not only is this a very cumbersome process, but there is reason to believe that neither the State nor the Federal agencies possess sufficient personnel or adequate procedures to analyze effectively

the voluminous data that they require the institution to submit. Therefore, sharing the same predispositions as staff at the State agency, the EEOC commonly finds for the complainant. At this point, the U.S. Attorney's Office will occasionally take on the case. This occurs only when the case is of significant enough magnitude to warrant the United States suing the institution; that is, only if the case has class ramifications or will set an important precedent. Instead, the usual procedure upon a failure of conciliation is for the complainant to be given a "right to sue" letter, creating a private right of action in that person. Complainants must then hire their own attorneys and file a suit in Federal District Court.

Fortunately, many cases end at this point if they are frivolous or not substantive enough for a good attorney to accept. As an example, a faculty member recently charged the University with sex discrimination in the awarding of salary increases. Both the Bureau of Labor and the Regional EEOC Office found for the complainant, and she was given a "right to sue" letter. An attorney advised her, however, that her case was extremely weak, and urged her to accept a modest settlement offered by the University. It is noteworthy that even in a fairly insubstantial case, not only were University resources used for a modest settlement to save the considerable costs of filing the necessary legal papers, but the University was forced to prepare no less than 1000 pages of documents for investigations by the Bureau of Labor and EEOC--documents that the University has reason to believe were never read.

If an attorney does file a suit for the complainant, the University must bear the legal costs of the suit's defense. By State statute, the State Attorney General is attorney for the University. However, in refutation

of the claim by independent universities that this constitutes a special advantage for public institutions, it should be pointed out that the University is billed by the Attorney General's Office for their services on an hourly basis, at rates competitive with those of major law firms. In addition, each institution employs a full-time legal counsel, who prepares most of the background papers for the Attorney Generals and sees that they are thoroughly familiar with the nuances of the academic environment.

As an illustration of the extent to which legal actions under civil rights statutes can affect University operations, OSU is presently engaged in a civil rights suit that has been brought to court by a former faculty member. It has now been learned that in the course of the trial almost every member of the affected instructional department will be asked to testify in court as to their recollections of the alleged discriminatory incidents. This would require a 180 mile round trip for each department member, each for an undetermined length of time—a procedure that will not only be costly, but that also threatens substantial interference with the educational process. This case has been in progress since 1973; its documentary and procedural requirements have imposed a significant burden on the University over this period of time.

CONCLUSION

The preceding pages have discussed some of the major interactions between Oregon State University and various governmental agencies with respect to the provision of student services, support of sponsored research and instruction, necessary corrections to the University's physical plant, and compliance with equal employment opportunity and affirmative action principles in personnel administration. The specific interactions discussed in these sections are only illustrative of the true scope of governmental impacts on the institution. In the area of students and student services, for example, the following areas of University/governmental interaction were not discussed:

- a. the effect of Immigration and Naturalization Service policies on the recruitment and continuing education of foreign students;
- b. the influence of Reserve Officer Training Corps (ROTC) programs on students and on the University;
- c. the role of air pollution monitoring agencies in prohibiting the incineration of trash in the University's residence halls;
- d. the development of a gynecology clinic in the Student Health Center through interactions with the County, State, and Federal government;
- e. licensing requirements and regulations imposed by the Federal Communications Commission for operation of the campus radio station KBVR-FM. (This area of interaction also now includes the Federal Aviation Administration in arranging for a new tower for the radio station's antenna.)
- f. the limitations of the new Federal Copyright Law as they apply to library photocopying.

Important areas of University/governmental interactions not discussed in the section on Sponsored Research include the following:

- a. the uncertain effect of proposed restrictions on recombinant DNA research;
- b. the influence of Federal patent regulations on the University's technology transfer program;
- c. provisions for cost sharing, and record keeping requirements with regard to equipment accountability on Federal research grants;
- d. restrictions imposed by the Federal Insecticide and Rodenticide Act on numerous research activities in the School of Agriculture;
- e. regarding the OSU Marine Science Center, complications arising from a dual permit requirement between the U.S. Corps of Engineers and the State Land Board for cuts or fills in waterways, and expenditures required by Environmental Protection Agency and Coast Guard regulations regarding ship waste disposal at sea for the University's research vessels.

Similarly, University/governmental interactions not included in the section on the institution's physical plant include the following:

- a. the effect of the Davis-Bacon (Wage and Hour) Act in greatly increasing the costs of construction for University facilities;
- b. the requirements for a separation of University storm and sanitary sewers provided for by the Federal Environmental Protection Act;
- c. revisions required in the Central Heating Plant to comply with Federal Clean Air standards;

- d. the effect of Federal standards regarding peace officers on the operations of Campus Security;
- e. the effects of various Federal rules and regulations concerning the transportation, emission, storage, and disposal of hazardous substances on physical facilities and special equipment needs of research and instructional units.

Finally, interactions with governmental agencies in areas relating to University personnel not discussed in the previous section of this impact study include the following:

- a. the effect of collective bargaining regulations and procedures on forthcoming University union elections;
- b. the potential effects of legislation currently proposed to prohibit imposition of a mandatory retirement age.

Higher Education General Information Survey (HEGIS)

One governmental interaction not discussed under any of the previous categories deserves special mention. The HEGIS reports annually distributed by the National Center for Education Statistics of HEW have imposed an increasing burden on University administrative offices. Not only have the number of individual reports and the number of data items contained in each increased dramatically in recent years, but continual changes in definitions and requested data elements have restricted the University's ability to establish standardized procedures for the annual preparation of this information. The following example, supplied by the OSU Library, amply illustrates the reasons for institutional discontent over HEGIS reporting requirements:

Although the Library prepares a HEGIS report annually, standardization of format and data items has not yet been achieved.

In particular, each year there always seems to be one inquiry that the Library cannot answer without substantial research. For example, until 1975 the Library was required to provide a volume count of holdings. However, the following year it became necessary to provide both a volume and title count. The report submitted that year by the Library contained only the volume count because the Library possessed neither a title count nor sufficient personnel to make such a count. Soon thereafter, HEW officials informed the Library that the HEGIS report submitted was unacceptable; in effect, the University was required to supply a title count even if such statistic were not available. The Library responded to this mandate by submitting a title count along with a note that this figure was a sheer guess, apparently to the satisfaction of HEW. This year a correct volume and title count was provided, entailing a card-by-card count of the shelf-list at an average cost of \$6.90 per hour; the total cost of providing this statistic was \$438.

Advance information indicates that the next HEGIS report will require the Library to provide new categories of information, many of which seem to Library officials to be totally useless. These items include:

1. Number of volumes of bound and unbound non-current periodicals.
2. Number of titles of all audio and/or visual materials (audio recordings, film strips, motion pictures, slides, overhead transparencies, etc.).
3. A totally new section on information contacts and directional transactions "per typical week, Fall 1977." Since this section

must be completed and mailed not later than October 1, 1977, it cannot be complied with because Fall term will not yet have completed a full week. It should be noted that an "information contact" is a contact between a Library employee and a user that does not involve information about the holdings of the Library, but rather describes physical or procedural aspects of the Library (such as operating hours, floor plans, check-out procedures, etc.). A "directional transaction" includes such topics as where to find restrooms, pencil sharpeners, or drinking fountains. Most libraries consider these two occurrences--information contacts and directional transactions--so routine that no record is kept of them. The new HEGIS requirements, however, will necessitate a "log" of daily requests and an accompanying dollar expenditure to maintain the log.

Compliance with these new requests is estimated to cost the Library \$2000, principally in time taken from already hard-pressed staff, with no reason for believing that the resulting figures will be substantially correct or managerially useful.

Although most of the University's operating records are now highly computerized, the efficiencies usually thereby gained in the preparation of statistical studies have not been realized in the case of the HEGIS reports. The continual introduction of new data elements and redefinition of previous data elements has necessitated substantial annual reprogramming efforts. The costs in both dollars and personnel time required to reprogram and reformat these computerized studies considerably diminish the benefit usually gained from the use of such modern management tools. The obvious remedy

for this state of affairs (assuming the data requested is in fact useful in any managerial or regulatory sense) is to field test new data formats to verify their practicality and validity, and to publish detailed notices of such report changes sufficiently in advance to permit adequate preparation for data gathering and report writing activities.

Resource Implications

The foregoing report has made no attempt to estimate the total monetary costs of all governmental interactions with units of the University. The most visible costs, of course, are those specifically budgeted items attributable directly to Federal programs or regulations. The following, for example, are budget headings and amounts appearing in the University's 1976-77 State-appropriated general funds budget (excluding capital expenditures):

Affirmative Action Office	\$ 71,200
Director of Safety	20,000
Laboratory Animal Resources	51,900
Educational Opportunities Program	180,200
Women's Studies	25,900
Urban Teacher Training Program	21,400
Upward Bound Program	12,800

All of the above are specifically budgeted programs that have been added in the past decade primarily for the purpose of satisfying Federal laws or regulations. These operations involve approximately 20 FTE positions, nearly all of which were added without benefit of special appropriations from State or Federal sources; in effect, they have been added at the expense of the University's instructional program.

The total negative effect on instructional programs is much more extensive than might be inferred from the apparent loss of 20 positions, largely because of the additional non-funded administrative burdens placed on department, school, and college offices by such procedural requirements as affirmative action. Perhaps one of the most revealing insights emerging from this Governmental Impact Study was the unanimous agreement among members of the University Commission on Governmental Impacts that whereas student enrollment in the last 10 to 15 years has doubled, their perception was that the number of instructional personnel increased by only 60% in comparison to the number of administrative personnel, which may have as much as quadrupled. What was so revealing, however, was that a subsequent analysis showed this consensus to be erroneous. In reality, over the last 15 year period the student FTE doubled and the instructional FTE rose by 60%, but the administrative FTE increased by less than 50%; over the last decade, moreover, the student enrollment increased by 60% and the instructional FTE increased by 34%, while the administrative FTE increased only by 11%. Thus, the uniformly strong impression of a disproportionately growing administrative component of the University has no basis in fact. What is most likely at the root of this misconception is an implicit recognition that although the University may not have a larger bureaucracy, it is without a doubt significantly more bureaucratic than even a short time ago. This Impact Study has clearly shown the many types of governmental interactions that have inexorably led to the accelerated bureaucratization of the University: programs such as affirmative action, student financial aid, safety, and sponsored research, while often of unquestioned benefit to OSU, have nevertheless required a significant centralization of University administrative activities to coordinate and monitor the complex requirements and obligations

associated with these programs. Also, the now well-acknowledged governmental emphasis on accountability has necessitated centralization of University record keeping, and development of numerous procedures for soliciting and collecting information from all campus units. Finally, the increasing tendency of individuals to seek legal remedy for grievances of all kinds, encouraged to a large extent by governmental regulations liberally invoking these procedures, has prompted a comprehensive and accelerated emphasis on the formalization and documentation of all University procedures. These three tendencies have together worked to encourage a rapid bureaucratization of the University as almost the only possible response to the growing influence of governmental rules and regulations in all facets of the University's operations.

Concluding Remarks

The message emerging from this Governmental Impact Study is that University discontent over many facets of its interactions with governmental agencies derives not so much from resentment of governmental intrusions into institutional operations, but rather from the exasperations of generally conscientious individuals who feel themselves constantly on the horns of a moral dilemma. Clearly, Federal legislation is only a reflection of societal goals, whose objectives are pursued through regulations that touch all sectors of U.S. enterprise, only one of which comprises institutions of higher education. The University recognizes and embraces the concepts that otherwise equally qualified individuals should have equal employment opportunities and benefits without regard to race, creed, religion, national origin, sex, age, or non-interfering handicap; that employees and students of the University should be able to work without compromising their health, safety, or general welfare; and that those

responsible for the expenditure of public funds should be fully accountable to the public for the use of such funds. What is equally clear, however, is that universities are charged with a further social obligation--the creation and dissemination of knowledge as effectively and equitably as possible. The moral dilemma arises when simultaneous pursuit of these many societal goals and mandates requires the application of resources beyond the institution's ability to provide them. It is in such circumstances of scarce resources that the conscientious individual seeks to identify those resource-consuming activities that are least effective or least efficient in providing progress toward the desired goal.

Many of the University/governmental interactions examined in this Impact Study illustrate instances in which resource expenditures do not seem to be effectively addressing societal goals. Many such requirements can be characterized as ineffective or unwise because they do not adequately recognize certain inherent characteristics of educational institutions: that they operate on academic year calendars, that large research universities are almost necessarily highly decentralized organizations, that there exists no effective mechanism for passing added costs on to the consumer of educational services, or that such practices as the awarding of tenure severely restrict the ability of the university to respond quickly to rapidly changing societal demands.

To be sure, there are also historical and philosophical grounds for opposition to the increasing regulatory role of governmental agencies in higher education. These arguments notwithstanding, the goal of this Governmental Impact Study has been both to acknowledge those areas in which governmental interactions with the University have been of undeniable benefit and have been strongly supportive of the University's mission and

goals, and to point out those areas in which governmental influence has been needlessly burdensome, if not demonstrably counter-productive. It most certainly does not detract from the University's appreciation of the many areas of governmental benefit and support to suggest that problems and concerns with regard to governmental burdens constitute actual costs (and all too often, losses) to society itself. Needless burdens represent wasted opportunities to society, and to whatever extent governmental agencies and educational institutions can work together to address those areas of ineffective or wasteful resource obligations -- to that extent society will surely profit.